BRISTOL ROYAL INFIRMARY

AN

ESSAY

ON

DIFFICULT LABOURS.

PART FIRST.

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LICENTIATE IN MIDWIFERY,

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CLASS SECOND.

DIFFICULT LABOURS.

CHAPTER VII.

SECTION I.

FROM this hiſtory of a natural labour, and from the tenour of what has been advanced in the preceding chapters, it appears that parturition is a proceſs of the conſtitution which generally, requires no aſſiſtance; and that when it is natural, it ſhould be ſuffered to have its own courſe, without interruption; for the very ſame reaſons, which render all interpoſition with other natural operations, unneceſſary and improper. Whence then ariſes the neceſſity or expediency of eſtabliſhing midwifery as an art for the relief of the human ſpecies? or in what reſpects has ſociety profited by the eſtabliſhment? Certainly neither on the preſumption that women are by nature deſ-

titute of thoſe powers, which at the time of parturition, are in all other creatures generally equal to the exigences of their ſituation; nor when thoſe powers are fairly exerted, every cauſe producing its effect, in the order and in the manner which the parts by their conſtruction were framed to perform and undergo; nor, when there exiſt no uncommon impediments, by which the effect to be produced by the operations of the natural cauſes, may be obſtructed. But as the aid of medicine becomes neceſſary, when from ſome defective, or irregular exertion of the native powers of the conſtitution: or from ſome adventitious cauſe of obſtruction, or from ſome infirmity in the conſtituent parts of any of the organs of the body, the functions of any part may be ſuppreſſed, impeded, or in ſome way rendered irregular, to the detriment of the part, or of the conſtitution: in like manner, the aſſiſtance of the art of midwifery may be required for the relief of irregularities or difficulties in the act of parturition.

In all creatures in which there is a difference of ſtructure, there muſt be a difference in the conduct of every function of the conſtitution, which is at all connected with, or dependent upon ſuch variety in ſtructure; and a difference in the proceſs of any function, eſpecially if that ſhould be rendered more complex, may become the prediſpoſing cauſe

cauſe of ſuch deviations from the natural courſe of the action, as may require the aſſiſtance of art: though the very ſame function, proceeding in a natural way, might be void of danger, and require no aſſiſtance whatever. The knowledge of the peculiarities of the human ſpecies, or of the ſpecific circumſtances in which women differ from all other female creatures, may therefore be conſidered as affording the only juſt and true baſis on which the practice of midwifery ought to be founded. Before we proceed then, to an enquiry into the particular caſes which may demand the aſſiſtance of art, or determine upon the manner in which that art can be exerciſed with the greateſt advantage, a review of thoſe peculiarities will be neceſſary and uſeful.

The firſt and moſt obvious circumſtance in which women differ from all other female creatures, is in the erect poſition of the body; of the conſequence of which, with regard to the *pelvis*, and ſome diſeaſes to which women are particularly liable, notice has been already taken*. In the original conſtruction of the *pelvis* in quadrupeds, with a view to parturition, there ſeems to be a neceſſity of regarding its capaciouſneſs alone; becauſe if even more than ſufficient ſpace were provided for the paſſage

* See the Introduction, Chap. i. Sect 5. and Chap. ii Sect. vii.

of their young, no attitude into which they put themſelves, or into which they can be compelled by any accident, during utero-geſtation, would ſubject them to danger on this account. But from the erect poſition of the human body, if the cavity of the *pelvis* had borne the ſame relative proportion to the ſize of the *fœtus* as in quadrupeds, women would have been liable to many and great inconveniencies; as the weight of the *ovum* and enlarged *uterus* muſt, in advanced pregnancy, have been occaſionally ſuſtained by the ſoft parts; which becoming thinner and leſs equal to that office, according to the advancement, premature labour would often have been brought on. For this, and perhaps ſeveral other leſs obvious, though equally important reaſons, which it is not neceſſary to enumerate, there undoubtedly is a greater difference between the dimenſions of the cavity of the *pelvis*, and the head of the human *fœtus* at the time of birth, than in any animal; and this difference muſt eventually become the cauſe of more painful and difficult labours.

As there is no effect throughout nature without ſome ſufficient cauſe, as well as ſome wiſe end, perhaps the moſt ſatisfactory proof of the exiſtence of this diſproportion, may be drawn from the conſtruction of the head of the human *fœtus*, which being incompletely oſſified at the time of birth, is capable of having its form changed, and its ſize diminiſhed,

diminiſhed, without any injury from the compreſſion. Theſe effects are produced in ſome degree in almoſt all labours, but very remarkably in thoſe which are compleated with difficulty; for in ſuch, the ſutures not only accede, but the edges of the bones will ride over each other in a very extraordinary manner. From this original and comparative relation between the cavity of the *pelvis*, and the head of the *fœtus*, women are naturally more liable to difficulties in parturition, than animals; which difficulties may be eſteemed as an allay for the advantage obtained by the erect poſition: or becauſe their offspring were ſo framed as to be capable of greater excellencies than animals; which excellencies may depend upon this conſtruction of the head. Without this incomplete oſſification, great numbers of children muſt have been inevitably deſtroyed at the time of birth, or the parents muſt have died undelivered. Nor is this proviſion only ſufficient to anſwer the end of mitigating thoſe evils to which women are by their ſtructure neceſſarily liable; but it is generally equal to the relief of thoſe which are occaſioned by morbid alterations in the ſize of the cavity of the *pelvis*.

2. The intercourſe between the parent and *fœtus*, while it abides in the *uterus*, though generally alike in all viviparous animals, has ſome variation in each claſs. The *ovum* is conſtructed for a temporary uſe, but in a moſt beautiful and

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perfect manner for the purpoſes for which it was ordained. The variations may exiſt either in the *uterus* or *ovum*.

In the *uterus* of the different claſſes of animals, the moſt obvious variety is in the form. Animals might, perhaps, be nearly as well arranged, and the claſs to which they belong as well determined by the form of the *uterus*, as by any other external or internal mark. Such as are the form and ſtructure of the *uterus*, ſuch will be the properties, and of courſe in every animal in which there is a difference in form, there will be ſome correſponding difference in the circumſtances of parturition; ſo that it is probable we ſhould not, on enquiry, find an exact likeneſs in the parturition of any animals which vary either in *genus* or ſpecies.

The *uterus* in all animals may be conſidered as the bed or ſoil in which the *fœtus* is preſerved and nurtured, till it arrives at a ſtate of perfection, and by which it is ultimately expelled. For the completion of theſe ends, there muſt be a perfect coincidence between the nature of the *fœtus* to be preſerved and nurtured, and the properties of the *uterus*, which performs thoſe offices. The varieties in the form of the *uteri* of different animals are progreſſive, from thoſe of the loweſt tribe, to the human, which when un-impregnated, is pyramidal, becoming more oviform according

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ing to the degree of its diſtention. On the form not only the accommodation of the *fœtus* may depend, but the term of utero-geſtation alſo; or the power which every individual *uterus* has of bearing diſtention only for a certain time. Yet if this were allowed, it would ſtill remain to be enquired why an *uterus* of one form, became capable of bearing diſtention for a longer time than that of another.

Complicated with, or dependent on form, is the ſubſtance or thickneſs of the *uterus*; and on this again the power which the *uterus* is capable of exerting at the time of parturition. The *uterus* in women is of greater thickneſs, and of a firmer texture in the un-impregnated ſtate, than in animals; and in theſe it is ſaid to become ſomewhat thinner, in proportion to its diſtention; whereas in women it retains its thickneſs, or becomes rather thicker during pregnancy. It appears that by this thickneſs is gained the medium of that power which is exerted by the human *uterus* in the act of parturition, and without which women could not in many caſes have been delivered. But if there had been occaſion in animals, for the exertion of an equal degree of power, they could not have been delivered; as there is not in them a medium by which ſuch power could have been exerted, and the form of the *uterus* would alſo have been unfavourable for its operation.

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This thickneſs of the *uterus*, notwithſtanding its diſtention, is chiefly preſerved by the enlargement of the arteries, veins and lymphatics, and their enlargement is moſt conſpicuous about that part to which the *placenta* adheres. The quantity of blood circulating in the human *uterus* and the adjacent parts, during pregnancy, is very great; and it probably undergoes ſome preparatory change, before it is conveyed to the *placenta*; ſo that it may be preſumed, that the *uterus* performs the office of a gland preparing the blood, before it is conveyed to the *placenta*, for a more perfect ſecretion of whatever is to be ſeparated from it, for the uſe of the *fœtus*; as well as of a containing part of the *ovum*. On the quantity of blood may alſo depend the action of the *uterus* at the time of labour; for if the *placenta* be looſened before the child is born, and the blood has a free diſcharge, there is ſeldom any efficacious action, though the *uterus* may be, in all other reſpects, in a ſtate of perfect health.

In our preſent enquiry, the principal part of the *ovum* which deſerves attention, is the *placenta*, and of this there is an endleſs variety in the different kinds of animals, according to the nature and properties of each parent and the offspring. In the *belluæ*, the office of the *placenta* is performed by the whole membrane of the *uterus* being thickened,

ed, and becoming proportionably vaſcular; in the *pecora* it is divided into many lobules, compoſed of long and vaſcular fibres, called *cotyledons*, affixed to as many temporary eminences of the internal ſurface of the *uterus*; in the *feræ* it ſurrounds the *uterus* like an internal belt; and ſo on, with great variety, in the different claſſes of animals. But in the human ſpecies, the *placenta*, as the word implies, is in one maſs, of a circular form, flattened, and becoming gradually thinner towards the edge, adheres to the *uterus* with a broad ſurface. When this is ſeparated, the orifices of many of the large veſſels of the *uterus* are opened, and a conſiderable quantity of blood is immediately diſcharged, far beyond what could poſſibly be loſt in any animal, though of a much larger ſize; and if the *uterus* was to continue diſtended, the orifices remaining open, there would be a dangerous or a fatal hemorrhage. For not only the blood circulating in the *uterus* would be immediately poured out of its veſſels, but all that which is contained in the body might be drained, and the patient ſpeedily periſh, if ſhe were not relieved by art; and yet no animal ever was or could be deſtroyed, or brought into danger by this circumſtance. For the ſame reaſon alſo, the uterine diſcharges continue a longer time, after delivery, in women than in animals; the irregularities and interruption of which may become the cauſes of diſeaſe, and are proofs

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that independent of faſhion or cuſtom, there is a neceſſity that women ſhould, for their own ſafety, be ſeparated from ſociety for a certain time after delivery. On account alſo of the form of the *uterus*, and the peculiarities of its action; of the bulk of the *placenta*, and the manner of its connection, it is more likely to be retained in women than in animals; and its retention may be followed with worſe conſequences.

3. In the conſideration of this ſubject, the paſſions of the mind are of too evident importance to eſcape attention. On a variety of occaſions, theſe, in human beings, (to a certain degree, in a natural ſtate, and much more when heightened by all the refinements and perverſions of ſociety,) are found to be capable of producing the moſt extraordinary effects; by ſuppreſſing or ſuſpending for a certain time the action of any, or of all the powers of the conſtitution; by occaſioning them to act with irregularity, and at improper times; and in ſome caſes alſo by exciting them to act with too great energy and force. But animals ſuffer neither from the recollection of the paſt, or dread of the future; and acting according to their nature, the good or evil of the preſent moment, to them appears to be the whole of their exiſtence. In the paſſions we may then diſcover ſources of danger, and diſturbance in the parturition of women, from which animals are exempt; and the obſervation is

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ſo general, that care is univerſally taken to prevent the communication of any intelligence to women in, or about to be in labour, which can either diſtreſs, or much agitate them. To this principle or cauſe, may alſo be referred, the many nervous affections to which women are ſubject in the ſtate of childbed, and for ſome time after they are delivered, when the animal powers are reduced, and the ſenſations quickened. But it muſt be allowed, that the greater degrees of theſe evils, are not to be attributed to phyſical infirmities, but to moral errors.

A conſideration of their unimpaired conſtitutions and leſs exquiſite feelings, will likewiſe diſcover to us the reaſon why the lower orders of women have more eaſy and favourable births than thoſe who live in affluence; the frame of whoſe bodies, and the ſenſibility of whoſe minds are altered, and often depraved, by the indulgence of parents, when they are infants, and by their own luxury, when they are adults. The conſtitutions of thoſe who are hardy, are better able to bear the common accidents of child-bearing, and they ſuffer leſs becauſe they have leſs feeling and apprehenſion. When the *Egyptian* midwives were charged before *Pharaoh* with diſobedience to his orders, becauſe they preſerved the lives of the *Hebrew* children, they pleaded in their excuſe, that the *Hebrew* women were not like the

Egyptian, " they were lively, and were delivered before they (the midwives) could come to them." The *Hebrew* women were ſlaves, accuſtomed to labour and hard living; but we may preſume, that the *Egyptians* ſuffered all the evils ariſing from indolence and luxury. The ſame obſervation will alſo explain the reaſon of many of thoſe evils which women in the higher ranks of life ſuffer; particularly why fewer women die in child-bed in the country than in cities, where even thoſe of the lower claſs, too often plunge into groſs indulgences, and therefore ſuffer the ſame or a worſe fate, than the delicately luxurious.

4. We are laſtly to conſider, that women are by conſtitution and by habits of education and living, ſubject to diſeaſes to which animals are not liable; which diſeaſes become of great conſequence, by creating new cauſes of difficulty, or by increaſing natural evils, or by weakening thoſe powers by the operation of which, difficulties ſhould be overcome. All theſe diſeaſes it is unneceſſary, and perhaps impoſſible to enumerate; but that, which by affecting the bones in general, and thoſe of the *pelvis* in particular, has the greateſt influence on labours, is deſerving of eſpecial notice.

By the *Rachitis* is not only underſtood the diſeaſe of children properly ſo called, but the *oſteo-ſarcoſis*, or *mollities oſſium* alſo, this being the

the only difference between them; that in the former, the bones, in the infantile ſtate, are prevented from acquiring ſuch a degree of firmneſs, as will enable them to ſuſtain the weight of the incumbent body, without yielding and becoming diſtorted; which diſtortion may remain to adult age. But, in the latter, the bones having been properly oſſified, become ſoft again, in conſequence of the abſorption of the oſſific matter, by which the moſt extreme degrees and frightful kinds of deformity have been ſometimes occaſioned. From diſtortion produced by either of theſe cauſes, the cavity of the *pelvis*, which in a natural ſtate, ſhould meaſure upwards of four inches, in its narroweſt limits, may be reduced to two, or even to leſs than one inch; by which the reciprocal proportion between it and the head of the *fœtus*, is perverted or deſtroyed, and it is abſolutely impoſſible for the latter to paſs through the former. This ſoftneſs and conſequent diſtortion of the bones, being peculiar to, or infinitely more frequent in the human ſpecies, occaſions difficulties at the time of parturition, from which animals are almoſt univerſally free. Even if animals were liable to it, from their poſition, and the diminiſhed weight which the *pelvis* in them ſupports, it could not produce the ſame kind or degree of effect. From the frequency of this diſeaſe, in cold and unwholeſome climates, or in crouded

crouded cities, where the employments and manners of the human race, weaken the conſtitutions of the inhabitants; and from its rarity in warm and healthy ſituations, with ruſtic employments and ſimple manners, we may conclude, though we retain and act upon the ſame principles, that the events of the practice of midwifery muſt be different in different places, and that the authority of the beſt writers muſt in ſome meaſure be local.

On account of the originally relative ſmallneſs of the *pelvis*, of the ſtructure of the *uterus* and *placenta*, of the paſſions, and of the diſeaſes to which mankind are by nature, or by the cuſtoms of ſociety, peculiarly liable, the cauſes of many difficulties and dangers which attend parturition, will be evident; and of courſe the neceſſity of eſtabliſhing midwifery, as an art, for the relief of women.

But to render theſe obſervations, with others, diffuſed through this eſſay, of greater uſe, I ſhall endeavour to reduce them into propoſitions in the following order:

1. All viviparous animals bring forth their young with pain.

2. The degree of pain which they ſuffer, will depend upon the degree of their ſenſibility, natural or acquired, and upon the difficulty with which they bring forth their young.

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3. The difficulty with which they, in general, bring forth their young, depends upon their conſtruction.

4. But by their conſtruction, they are alſo endued with powers capable of overcoming all the difficulties to which ſuch conſtruction generally renders them liable.

5. The proceſs of parturition in animals, is therefore to be eſteemed a natural proceſs, requiring no other aſſiſtance, than the exertion of thoſe powers which depend upon their conſtruction.

6. The conſtruction of the females of the human ſpecies is different from that of the females of any order of animals.

7. The conſtruction of the females of the human ſpecies is ſuch, as to render them unavoidably ſubject, in general, to greater pain and difficulty in parturition, than the females of any order of animals.

8. But by the conſtruction of the females of the human ſpecies, and by the original formation of the head of the human *fœtus*, proviſion is made for overcoming all the difficulties to which the peculiarities of their conſtruction may render them generally liable.

9. With regard to the act of parturition, when natural, women are therefore to be eſteemed on a ſimilar footing with animals.

10. But

10. But as women are by their conſtruction, and by the cuſtoms of ſociety, ſubject to diſeaſes and accidents, which increaſe the natural difficulties and danger attending their parturition, from which the females of every order of animals are free;

11. It will follow, that the occaſions which require aſſiſtance at the time of parturition, muſt, of neceſſity, occur more frequently in women, than in the females of any order of animals.

From theſe premiſes, the expediency and neceſſity of eſtabliſhing midwifery as an art for the relief of the human ſpecies, will appear.

SECTION II.

MANY general circumſtances and appearances have been mentioned, and conſidered as the preſumptive ſigns of difficult labours; and though I apprehend, that much ſtreſs cannot be laid upon them with a view to practice, it will not be improper to enumerate them. If they were certain and invariable, it would be incumbent on us to underſtand the degree and extent of their influence, and to apply ourſelves to the diſcovery of ſome means, by which we might prevent or remedy the evils we foreſaw.

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The kind of labour which any particular woman will probably have, has been ſuppoſed to depend, in ſome degree, upon her complexion. Women with very fair or very dark complexions, have been conſidered to be equally ſubject to difficulties or inconveniencies in parturition; whilſt thoſe of the intermediate ſhades were ſuppoſed to have advantages in their favour. Now, as far as any particular complexion can indicate a general ſtate of health, this obſervation is reaſonable and true, with reſpect to labour; thoſe who have the beſt health, uſually paſſing through that proceſs in the beſt and ſafeſt manner. But as thoſe who are of complexions in either extreme, may have perfect health, any inference drawn from this principle, muſt be liable to many exceptions.

By the general ſize of the body, it has been conjectured that we might foreſee whether an enſuing labour would be eaſy or difficult. This obſervation will ſtand upon the ſame ground with the foregoing; that is, it may hold good, as far as one certain ſize may be found beſt ſuited for the performance of all the functions of the body, and the purpoſes of life. Thoſe who are very tall, are not often very active, or capable of bearing much fatigue; and thoſe who are very ſhort, may have become deformed in conſequence of ill health in the early part of their lives: Thoſe on the con-

trary, who are of a middle ſize, or rather below it, being preſumed to be more generally healthy, and beſt adapted to the common occaſions of life, may be expected to have the beſt labours, as they have ſufficient power, and a readier diſpoſition to act.

The habits of life, and the diſpoſitions of patients, have been ſuppoſed to have ſome influence in forwarding or retarding labour. Thoſe women who are indolent in their habits and diſpoſitions, perform all the functions of the conſtitution in a ſlow and indolent manner, and of courſe may be expected to have tedious labours. But thoſe who are of lively diſpoſitions and active habits, being in the conſtant exerciſe of their powers, have not only theſe powers ſtrengthened, but greater energy alſo; and the activity of the parts concerned in parturition, will partake of that of the body in general.

The regularity, together with the eaſe or difficulty of a labour, may, in ſome meaſure depend upon the ſtrength or weakneſs of the faculties of the mind; but this muſt be a very general obſervation, and can only hold good in that extenſive way in which it is admitted in other occurrences of life, in which weakneſs of judgment may fancy evils that do not exiſt, or add to the weight of thoſe which are unavoidable.

Labours are generally affected by the climate

in

in which women live. In hot climates, all natural labours are ſaid to be more eaſy than in thoſe that are cold; probably, becauſe the diſpoſition to relax and dilate, is more perfectly aſſumed. But in cold climates, from the acquired rigidity and firmneſs of the parts, there will be occaſion for greater exertion, though there may be greater power; and if the labours are ſlower, perhaps the feelings are leſs, and they may terminate with equal ſafety, and without greater ſuffering. In the ſame climate there will generally be ſome variations in labours at different ſeaſons; and I believe it is true, that in this country, women have eaſier labours in ſummer than in winter.

Such obſervations might be extended to a greater length, and diſcuſſed with more nicety; but they can hardly eſcape the notice of an attentive man, and he that is prudent will not eſteem them of too much value.

SECTION III.

WITHOUT ſome accuracy of diſtinction, it will not be poſſible to acquire ſuch a knowledge of *Difficult* Labours, as will enable us to conduct women through them ſafely and properly; and it is therefore neceſſary, in the firſt place, that we ſhould define what is meant by the term. We will then ſay, that every labour ſhall be called *difficult*, in which the head of the child preſents, if the labour is protracted beyond twenty-four hours *.

This definition, which is chiefly taken from time, is liable to ſome objections, as there may be more pain endured, and greater difficulties ſurmounted by one woman in ſix hours, than by another

* Fit partus difficilis et laborioſus, quod nec modo neque ordine debito res peragatur, aut pravis aliquibus ſymptomatis impediatur. HARV. *Exercit. de Partu.*

Dicitur autem partus ille difficilis, qui cum fœtûs vel matris periculo accidit; vel quia cum graviſſimis fit ſymptomatibus, vel quia tardius procedit, ita ut longo tempore prematur mulier—*Roderic. a Caſtro Luſitan.*

Partus difficilis appellatur, qui debitas atque ordinarias naturæ leges non ſervat, ſed longius tempus inſumit, et dolores ſubito vehementiores, aliaque ſymptomata graviora comitantia habet—*Riverii Prax. Medic. De Partu difficili.*

Fœtûs maturi enixus laborioſiſſimus. *Linnæi Noſologia.*—

other in twenty-four; but on the whole, it will be found to apply in an advantageous and unexceptionable manner in practice. It will, in particular, afford a remedy for impatience, and guard the practitioner, in some measure, from premature attempts to give assistance, without incurring the danger of those evils which might be apprehended from too long delay.

Of those labours which come under the denomination of *Difficult*, there is an almost endless variety in their causes or their degree. Some are occasioned by one cause alone, but more frequently by a combination of various causes; though one may be more obvious and important than the rest*. For the uses and purposes of practice, it is not enough to say, that all labours are rendered difficult, either from the greatness of the obstruction, or by the insufficiency or debility of the power by which the obstruction should be overcome; or, that some depend upon the mother, and others upon the child. Such distinctions are too general. The particular cause of every indi-

* As many causes concur in the production of compound effects, we are liable to mistake the predominant cause, unless we can measure the quantity of the effects produced, compare them with and distinguish them from each other, and find out the adequate cause of each single effect, and what must be the result of their joint action.

See Dr. DESAGULIER's *Preface.*

vidual difficult labour, ſhould be pointed out, as well as the conduct which each ſpecific cauſe may require. It was before obſerved, that there are advantages to be gained by experience, of which no doctrine or words can convey an adequate idea; and thoſe who are in poſſeſſion of experience, ſeldom bend to the rules of others. But it is of the greateſt conſequence to thoſe who have not yet gained experience, that they ſhould acquire the habit of regiſtering and arranging the particular knowledge they may have an opportunity of gaining, into regular order, or they will loſe the benefit of it; as it will either be loſt, or recollected with difficulty, when they want to apply an obſervation made in one caſe to the exigencies of another. To prevent theſe defects, we will divide all Difficult Labours into four Orders or Kinds, and then enumerate the principal cauſes of each Order. As the knowledge of cauſes, and the management or removal of effects or difficulties, ſhould go hand in hand, the methods to be uſed for the relief of theſe, will at the ſame time be pointed out.

In the *Firſt* Order will be included all thoſe labours which are rendered difficult from the inert or irregular action of the *uterus:*

In the *Second*, thoſe which are occaſioned by the rigidity of the parts to be dilated:

In

In the *Third*, thoſe which are occaſioned by diſproportion between the dimenſions of the *pelvis* of the mother and the head of the child:

In the *Fourth*, thoſe which are rendered difficult by diſeaſes of the ſoft parts.

Under one or other of theſe Orders, every Difficult Labour may be arranged.

SECTION IV.

ON THE FIRST ORDER,

OR,

Thoſe Labours which are rendered difficult from the inert or irregular Action of the Uterus.

THE action of the *uterus*, by which every child muſt be expelled, is accompanied with pain proportionate to the force and to the reſiſtance made. But as this action may become imperfect, irregular, or inſufficient for the purpoſe of expelling the child, we ought to be acquainted with the cauſes of ſuch imperfection, irregularity, or inſufficiency. Of theſe cauſes there is,

1. *The too great diſtention of the uterus.*

It was formerly believed, that the *uterus* was diſtended mechanically, by the increaſe of the

ovum

ovum contained in it; and with this opinion, it might be concluded, that either from the ſize of the child, or the quantity of waters, the *uterus* might be brought into a ſtate ſimilar to that which takes place in the bladder; which, when diſtended beyond a certain degree, loſes all power of action. But later obſervations have proved, that the impregnated *uterus* is not diſtended by its contents, but by the operation of a principle which it acquires in conſequence of pregnancy; which principle ceaſes to act at the concluſion of the term of utero-geſtation, and is ſucceeded by another directly contrary, that of expulſion *.

But though the *uterus* cannot be diſtended beyond its power of action, it was obſerved, from the ſlowneſs and ſmallneſs of the effect of the firſt pains of labour, that the power exerted by the *uterus*, is generally ſuited to the ſtate of the parts, and the parts to the *uterus*, with a wonderful co-incidence. Yet as every principle in nature may alter or fail, ſo that of the diſtention of the *uterus* may prevail to ſuch a degree, or may continue ſo long a time, that its poſſible force ſhall be weakened, and its energy leſſened; and this ſeems to be proved, not only by the ſlackneſs of the pains in the beginning of all labours, eſpecially in thoſe caſes in which

* See the Introduction, Chap. iv. Sect. x.

which there are two or more children, but by the increaſe of that action, when part of its contents are evacuated. It is ſtill to be recollected, that the *uterus* cannot be diſtended beyond its power of action, though when greatly diſtended, it is only capable of ſlow and feeble action, which is however preparatory to that which is ſtronger. Feebleneſs of action, from diſtention, is not then an object of art; and it is perhaps beyond the influence of any earthly power to give to the *uterus* its native or genuine diſpoſition to act. Human art may put or preſerve the conſtitution in a ſtate fitted for ſuch action, or it may remove any impediments to its effect; but the principle is wholly independent of the will of the patient, or the ſkill of the practitioner. When therefore the pains of labour are feeble in the beginning, as no harm can ariſe from this cauſe, either to the mother or child, except that the former is under the neceſſity of bearing them for a longer time, though on the whole, perhaps, not in an increaſed degree; and as the methods adviſed and practiſed for the purpoſe of accelerating labours rendered tedious from this cauſe, are either immediately injurious, or may lay the foundation of future miſchief to one or both, we may with ſafety and propriety leave the buſineſs entirely to its own courſe without any interpoſition. Even when the labour has made con-

 ſiderable

ſiderable progreſs, and there has been reaſon to expect that it would be concluded in a ſhort time, there may be a ſuſpenſion of the action of the *uterus* for many hours, without any miſchief or hazard, as experience often ſhews, though the cauſe of ſuch ſuſpenſion may not be obvious to, or explicable by us.

Immediately on the acceſſion of labour, it has been the cuſtom to confine women to their beds, or to ſome particular poſition, on the preſumption that it would be thereby rendered more eaſy than in any other. By ſuch conduct, expectations of a ſpeedy delivery are often raiſed; and when theſe are baulked, the mind of the patient is diſturbed, and then the proceſs becomes irregular. But it will always be found more comfortable and uſeful to leave the patient to her own choice in theſe matters, and her inclination will be a better guide than any other. Time is the ſafeſt and generally the only remedy for lingering and tedious labours from this cauſe, and the patient will often find relief, either by walking or ſtanding, or chuſing that poſition which ſhe herſelf prefers, becauſe ſhe will inſtinctively ſeek that which is proper. However in many ſituations of this kind, the frequent exhibition of emollient clyſters is of ſervice; and when the labour is far advanced, in ſome caſes in which the action of the *uterus* is very feeble and ſlow in its returns,

returns, as if it were unwilling to come on, a clyſter rendered ſtimulating by the addition of one ounce of culinary or cathartic ſalt, will often rouſe the dormant powers to action, and the labour will be ſoon compleated *.

2. *Partial action of the uterus.*

It was obſerved, that previous to labour, the *uterus* commonly ſubſided lower into the *abdomen*, and that the more perfect this ſubſidence was, the more kindly would the labour probably be; becauſe the *uterus* would act with more advantage. But in ſome caſes, the *fundus* of the *uterus* does not ſubſide before or even in the time of labour, the patient herſelf being ſenſible of, and complaining that the child is very high in the ſtomach. Sometimes the patient will alſo complain of vehement and cramp-like pains in various parts of the *abdomen* producing no effect, and which are afterwards proved to have been occaſioned by the irregular contraction of the *uterus*. This irregular and partial action, which is properly called ſpaſmodic, is capable of throwing the *uterus* into various forms; ſometimes the longitudinal, and at others the hour-glaſs, with all their varieties. Every change in the form of the

 cavity

* Clyſteres injiciantur, quorum irritatione expultrix uteri facultas excitatur, et depleta inteſtina, ampliorem locum utero relinquant.

Riverii Prax. Medic. De Partu Difficili.

cavity of the *uterus*, from the genuine, will be productive of inconvenience, according to the peculiarity and degree of alteration; and it is to be wiſhed, that we had the power of altering the form when thus irregular, of ſuppreſſing the action of the *uterus* when too vehement or untimely, and of ſtrengthening it when too feeble, according to the neceſſities of each caſe. But as theſe things are beyond our power, and all that we can do is, not by commanding what we chuſe, but by making the beſt of ſuch circumſtances as do really occur, it is neceſſary to conſider, whether by any previous management it is in our power to prevent or remedy this irregularity of action, when it is in ſuch a degree, as to be very painful or troubleſome before, or at the time of labour. When there is pain of any unuſual kind in the region of the *uterus*, greater or different from that which may be conſidered as one of the common effects of pregnancy, there is uſually an increaſe of that feveriſh diſpoſition, which in a certain degree is natural to all women with child; and then it will be neceſſary to take away ſmall quantities of blood, and to be very attentive that the regular courſe of the bowels is procured or preſerved. This irregular, as well as the inſufficient action of the *uterus*, moſt frequently happens to thoſe who are naturally too irritable, or who lead inactive lives; and to ſuch women ſhould be pointed out the neceſſity

ceſſity of uſing exerciſe as far as their unwieldineſs will allow; and even in the time of labour, if rendered tedious from this cauſe, in which their pains are very ſharp yet ineffectual, it is of uſe to bear them when in an erect poſition, and to walk about in the interval. The chief part of what can be done further, is to impreſs upon her mind, the neceſſity of exerciſing that patience which we on our part ought never to want. In ſome caſes of this kind, when the patient has ſuffered much and for a long time, after bleeding and the adminiſtration of a clyſter, I have directed twenty drops of *Tinct. Thebaica* to be given, with the intention of ſuppreſſing the preſent pain which was irregular, and with the hope that when the pain returned, it would be with regularity and efficacy. But in general I have great objections to opiates on ſlight occaſions for women in labour; being perſuaded, that by diſturbing the order of labour, they occaſion very untoward ſymptoms, and make that which was in itſelf natural, become difficult or dangerous to the mother or child, as evidently as any other kind of interpoſition.

3. *Rigidity of the membranes.*

This has been mentioned by the generality of writers, as a cauſe of difficult labours; and I have obſerved, when a labour proceeds ſlowly, the membranes being unbroken, that their rigidity is uſually aſſigned as the cauſe of the difficulty. This ſubject has

has been conſidered in the hiſtory of Natural Labours; but we cannot too often inculcate, that neither the mother nor child are ever in any danger on account of the labour, before the membranes are broken; and that there is infinitely more caution required to avoid breaking them too early, than there is difficulty in breaking them when it is neceſſary. The true cauſe alſo why the membranes do not break at the uſual or proper time, is not in truth from the rigidity of the membranes, but from the weak action of the *uterus*; becauſe the membranes are ſcarcely ever ſo rigid as to withſtand the force of very ſtrong pains, unleſs the whole *ovum* were expelled at the ſame time; a circumſtance not unfrequent in premature labours. More than one caſe has occurred in my own practice, to which particular attention has been paid, for the purpoſe of regiſtering the obſervation, in which the labour has commenced properly, and proceeded with much activity, till the *os uteri* was fully dilated, and then ceaſed altogether for ſeveral days: at the end of that time, the action of the *uterus* has returned, and the labour has been finiſhed ſpeedily, with perfect ſafety to the mother and child*.

The

* When the head of the child is born with the membranes unbroken, it is ſaid to be born with a cawl. To this cawl imaginary virtues have been attributed, and a fancied value has been ſet upon it. It was eſteemed the perquiſite of the midwife,

The circumſtances of labours are however ſometimes ſuch as make it not only juſtifiable but eligible or perhaps neceſſary to break the membranes artificially. But before this is done, we ought firſt to be aſſured of the ſtate of the *os uteri*, becauſe it will often be ſpread ſo thin over the head of the child, before it is in any degree dilated, as to reſemble the membranes. But when the *os uteri* is wholly dilated, and we have determined upon the propriety of breaking the membranes, no inſtrument is required for that purpoſe. If they are confined with the end of the fore-finger upon the head of the child, during the time of a pain, they generally give way; or if this is inſufficient, they may be rubbed with the end of the finger, on one particular ſpot, till they are worn through; or they may be ſcratched with the nail of the finger, cut and turned up for that purpoſe. I am perſuaded, that no perſon, who is capable of judging when the membranes ought to be broken, will ever meet with any difficulty in breaking them.

4. *Dribbling of the waters.*

This circumſtance is a cauſe, or at leaſt a frequent attendant on Difficult Labours, eſpecially when the membranes have been broken deſignedly, or

midwife, and perhaps the whole was the contrivance of ſome intelligent man, to prevent her from interfering with any labour, which was going on in a natural way.

or ſpontaneouſly before the *os uteri* was dilated. But if the membranes are not broken, before the complete dilatation of the *os uteri*, the whole quantity of the waters is generally diſcharged at once, and the head of the child advances ſpeedily. Sometimes indeed the head of the child is ſo placed as to lock up a great portion of the waters, which cannot eſcape till the head is expelled. Should the waters be imperfectly diſcharged, a further ſmall portion of them is evacuated whenever there is a pain, and the pain is not efficacious, or immediately ceaſes after the diſcharge. In this ſituation there are only two methods to be purſued; we muſt either wait till the waters are all drained away by theſe repeated ſmall diſcharges, or we muſt contrive ſome method by which their evacuation may be haſtened. If there be no reaſon againſt our waiting, it is better not to interfere, but to leave the buſineſs entirely to nature, explaining the ſtate of the caſe to the patient or her friends; taking care to prevent their apprehenſion of danger from the delay of the labour, and not by our ſolicitude to raiſe their expectations or their fears. But when the waters dribble away in the advanced ſtate of a labour, or there is reaſon for our wiſhing a ſpeedy concluſion of it, either on account of the mother or child, it will be expedient to forward the diſcharge of the waters, by raiſing the head of the child

child a little higher into the *pelvis*, by the introduction of the fingers and thumb of the right hand, which may be done without prejudice to either of them, during the continuance of the pains; or, by preſſing the head towards the hollow of the *ſacrum*, by which means, more room will be made for the waters to eſcape. However, the dribbling of the waters is not a circumſtance of much importance, when it is not combined with other cauſes of difficulty; and it may be again mentioned that it is generally occaſioned by the artificial or premature rupture of the membranes.

5. *Shortneſs of the funis umbilicalis.*

The *funis umbilicalis* ſeems to admit of a greater variety than any other part of the *ovum*, being in one ſubject perhaps three or four times as long as it is found in another. It may be naturally very ſhort, or it may be rendered ſo accidentally, by its circumvolution round the neck or body of the child; and whichſoever of theſe is the caſe, the inconvenience produced at the time of labour is the ſame; that is, the labour may be retarded; or perhaps the *placenta* may be looſened prematurely; or the child may be injured by the mere ſtretching of it, as this muſt neceſſarily leſſen the diameter of the veſſels. But the two latter inconveniences very ſeldom occur.

The ſhortneſs of the *funis* is always to be ſu-

ſpected when the head of the child is retracted upon the declenſion of every pain; and it may ſometimes be diſcovered that it is more than once twiſted round the neck of the child, long before it is born. Various methods have been recommended for preventing this retraction of the head, ſome of which are inſufficient, and others unſafe*; and the inconvenience is uſually overcome, by giving the patient more time. But if the child ſhould not be born when we have waited as long as we believe to be conſiſtent with its ſafety, or that of the parent, it will be proper to change her poſition, and inſtead of ſuffering her to remain in a recumbent one, to take her out of bed and raiſe her upright, and to permit her to bear her pains in that ſituation; or, according to the ancient cuſtom of this country, to let her kneel before, and lean forwards upon the edge of the bed; or, as is now practiſed in many places, to ſet her upon the lap of one of her aſſiſtants. By any of theſe methods the retraction of the head of the child is not only prevented by its own gravitation, but the weight of the child is alſo added to the power of the pain; and it is likewiſe expelled upon an inclined inſtead of a level plane. In the courſe of practice, I can recollect

* Nocet obſtetricis digitus ano immiſſus, item nimia feſtinatio.—RUYSCH.

recollect with infinite ſatisfaction, a great number of caſes in which, by adverting to the benefits to be gained by an erect poſition, labours have not only been accelerated, but the uſe of inſtruments, which were before thought neceſſary, has been avoided.

When the head of the child is expelled, if the *funis* be twiſted round its neck, there is ſometimes a little delay and difficulty before the body can be excluded or extracted. We are, in the firſt place, taught that it is proper to bring this over the head forwards, leſt the *placenta* ſhould be ſeparated, or the body of the child be hindered from advancing till it ſuffers detriment, or is brought into abſolute danger. But it is in ſome caſes drawn ſo tight round the neck, that this cannot be done, without increaſing the hazard of the miſchief we wiſh to avoid. We have then been adviſed to ſlide the *funis* over the ſhoulders, but this may be equally impracticable with the former method. If either of theſe intentions can be accompliſhed without violence, they are to be attempted, otherwiſe they muſt be omitted. The child will nevertheleſs be expelled, if we wait for the return of a few pains, which we may do very ſafely, and without any other inconvenience than an increaſed diſtention of the *perinæum*; the body making a ſhorter

bend or doubling on account of the confinement of the neck by the twiſting of the *funis*.

Inſtances have occurred in which though the head of the child was expelled, the body has remained, and could not even be extracted for a long time, perhaps for ſeveral hours. Two things are then to be conſidered, firſt, whether the child be alive; ſecondly, whether it be hindered by the ſhortneſs of the *funis* merely. If the child be alive and breathes though imperfectly, we have no occaſion to be in a hurry, it being only requiſite that we ſhould keep its mouth open, allow of the free acceſs of the air, till it is expelled, or can be more readily extracted; for the internal organs will accommodate themſelves to that ſtate, and the child will poſſeſs a ſpecies of life half uterine and half breathing. But when it has remained in that ſituation as long as we think conſiſtent with its ſafety, and it cannot be without great violence extracted, ſhould it be hindered by the ſhortneſs of the *funis*, we have been taught * that it is adviſable to divide the *funis* before the body is expelled. Previous to our doing this it will however be expedient to tie the *funis* with two ligatures, and then to divide it between them, otherwiſe the child will be inſtantly deſtroyed by the ſudden guſh of blood,

* See *Chapman*—p. 63 and 85.

blood; as happened in a caſe under my own care, though it was living when I divided the *funis*.

When the child is dead, and the total excluſion of it is prevented by the tumefaction of the body, or by any other cauſe, by paſſing a napkin or handkerchief round its neck, and taking both the ends in our hands, we ſhall be able to exert much force, and if we pull ſteadily, and in a proper direction, we ſhall uſually ſucceed in extracting it. But if we are yet foiled in our attempts, turning the head on one ſide, we muſt endeavour to bring down one or both arms, which being included in the handkerchief, will allow us to pull with more force, and facilitate the paſſage of the body. The greateſt difficulty of this kind I ever ſaw, was in conſequence of the inflation of the whole outline of the body from its putrefaction, and there was occaſion for all the force I could exert; but in other caſes I have ſucceeded better, by availing myſelf of the changes produced, by waiting and giving more time, rather than by the exertion of much force.

6. *Weakneſs of the conſtitution.*

The health of women at the time of parturition is often impaired, either by ſome general indiſpoſition which may have continued through pregnancy, though not altogether dependent upon it; or, by ſome diſeaſe with which they are attacked, when they are perhaps in daily expectation of falling into labour. The more perfect their health

is,

is, the better fitted they are for the circumſtance of child-bearing, as the proceſs will not only go on with more regularity, but they will alſo recover more favourably, as is well known to thoſe who are engaged in the practice of midwifery. Becauſe though it be allowed that the ſtate of child-bearing is not a ſtate of diſeaſe, yet experience has ſhewn, that all diſeaſes with which women are at that time affected, are not only apt to fall upon thoſe parts which are left in a more irritable ſtate, in conſequence of the changes they have ſo lately undergone, but the progreſs of diſeaſes is alſo then more violent, and the event more dangerous *.

But the caſe of which we are now ſpeaking, is when the general health of women is reduced below its proper ſtandard, by ſome previous or accompanying diſeaſe, not abſolutely connected with the ſtate of pregnancy, of which a conſumption is a very fair example, as conſumptive perſons ſeem of all others to be in the moſt hopeleſs ſtate. But though ſuch are often in their own minds, and in the opinion

* Hence at the time of any epidemic diſeaſe, women more frequently fail in child-bed, though they are managed with equal ſkill and care. In the hiſtory of the different plagues in London, there are ſometimes two or three hundred women who are put down as dying in child-birth in one month. *Procopius* has alſo told us in his account of the plague at Conſtantinople—*Tres ſaltem puerperæ convaluere.*

nion of their friends, not able to go through the fatigue and other unavoidable conſequences of child bearing, I do not recollect an inſtance of any woman, in that ſituation, being unequal to her delivery, or having her fate haſtened by it. If ſuch women have little ſtrength, they have little difficulty to overcome; the ſtate of the parts which, in a common way, might require the exertion of much force, correſponding with the force which they are able to exert; and more time only is required. When this prognoſtic however is made, of the probable event of ſuch labours, it is to be preſumed that no particularly untoward circumſtance ſhall occur; for if there ſhould, it cannot be expected, that with extreme debility there ſhould be the ſame power or reſources, as in great ſtrength and good ſpirits.

In conſtitutions much reduced by a conſumption, or a diſeaſe of any part not immediately affected by child-bearing, there is, uſually, not only ſufficient ſtrength for perfecting the buſineſs of a common labour, but the patient appears to be relieved for a certain time after her delivery; and then, if they were not dependent on pregnancy, or were incurable, they return, and make their wonted progreſs.

The effect of diſeaſes ſeems alſo in many caſes, to be ſuſpended during pregnancy. Of the diſtinctions to be made in our opinion, of the event of

acute

acute diſeaſes, during which a patient may either be delivered at her full time, or ſuffer abortion, we have already ſpoken in the Eſſay on Uterine Hemorrhages.

7. *Fever or local inflammation.*

On the acceſſion of labours, there is uſually ſome increaſe of heat, of the quickneſs of the pulſe, thirſt, and general feveriſh diſpoſition; and theſe are commonly in proportion to the exertions required, or made for the completion of the labour, with reſpect to which they are properly ſpeaking, merely ſymptomatic. But in ſome caſes the excitement is too great, and inſtead of helping the action of the parts concerned in parturition, it prevents their acting with regularity or energy. Whenever the pains of labour are feeble, it is a vulgar cuſtom, without regard to the cauſe, to give cordials very freely, with the view of accelerating their returns, or of ſtrengthening them; though under many circumſtances, by ſuch proceeding * we evidently add to the evils we mean to remove. In ſome caſes alſo, from the acuteneſs and conſtancy

* *Lord Bacon* had a clear idea of this, though by the manner of expreſſion it is rendered ſomewhat obſcure: "To procure eaſy travails of women, the intention is to bring down the child, whereunto they ſay the loadſtone helpeth; but the beſt help is to ſtay the coming down too faſt."

Nat. Hiſt. cent. x. 968.

ſtancy of the pain which the patient endures, and from its ſituation alſo, it may be readily diſtinguiſhed from that which is occaſioned by the action of the *uterus*, and gives us too much reaſon to ſuſpect, that ſome of the contents of the *abdomen* are already in a ſtate of inflammation.

It does not ſeem neceſſary to bleed every patient on the acceſſion of labour, and for ſome it muſt be highly improper. But whenever the feveriſh ſymptoms become violent, it is I believe univerſally proper; the quantity of blood taken away being ſuited to the degree of fever, and to the conſtitution of the patient; and much ſervice will alſo be done by the frequent exhibition of emollient clyſters, by keeping the room cool and well aired, by giving cooling drinks and medicines, and by keeping the patient in a quiet ſtate. When the fever is removed, the pains will come on, and perform their office with propriety and ſucceſs. Independently of fever, when the exertions which the patient makes are vehement, if ſhe be plethoric, there is on that account ſometimes a neceſſity of taking away ſome blood; for during theſe vehement exertions, if the blood-veſſels are diſtended, ſome of them may give way, and the patient be brought into the moſt imminent danger, before the delivery then at hand, be compleated.

8. *Want of Irritability in the Conſtitution.*

Under many circumſtances which occur in the practice of medicine, it has been obſerved, that when a cauſe of pain exiſts, it is found to produce an effect quite contrary to what might be expected; that is, inſtead of exciting the powers of any one part, or of the whole frame to action, it creates a partial or univerſal inſenſibility, and a diſproportionate action. In ſome caſes, on the acceſſion of labour, the cauſe, inſtead of raiſing a diſpoſition to act, or a power of acting with energy in the parts concerned, ſeems to leſſen both the diſpoſition and power to act, and in ſome caſes to deprive them, for a certain time, of all power, as effectually as if they became paralytic. Inconveniencies of this kind are moſt frequently obſerved to take place in fat and inactive women, and ſuch, in ſpite of all the means which can be ſafely uſed, will neceſſarily have very ſlow and lingering labours; and though they may at length be delivered by their pains, feeble as they are, when there is no material cauſe of obſtruction, much time will be required for every part of the proceſs. I have often ſuſpected that the foundation of this imperfect action, or total inaction in the advanced ſtate of labour, may have been laid by ſome error or accident in the beginning, perhaps, by exciting the

action

action prematurely, which will, of courſe, ceaſe when the artificial cauſe was removed *.

The circumſtances attending labours are generally alike, yet in many women they are marked with ſome peculiarity, moſt frequently in the time required for their completion. When we have had an opportunity of obſerving the progreſs of labour in two or three inſtances, we ſhall be able to tell what will be the probable termination, and when it will take place; and we can no more controul the order of a labour in one woman, ſo as to make it correſpond with or reſemble that of another, than we can judge of the quantity of food which one perſon may require by that which is ſufficient for another, or regulate any other function of the body. One woman may require twelve hours for the production of the ſame effects in the time of labour, that another may finiſh in four hours; and it would be in vain to attempt to make an alteration, becauſe the reaſon exiſts in ſome eſſential property of the conſtitution.

9. *Paſſions of the Mind.*

As the infirmities and particular ſtates of the body have a powerful influence upon the mind, and as the affections of the mind have, on various occaſions, a reciprocal effect upon the body, it might

 be

* See the Introduction, Chap. IV. Sect. X.

be reaſonably expected, that the progreſs of a labour ſhould be forwarded or hindered by the paſſions. It is conſtantly found, that the fear of a labour, or the ſame impreſſion from any other cauſe at the time of labour, leſſens the energy of all the powers of the conſtitution, or diminiſhes, or wholly ſuppreſſes the action of the parts concerned in parturition. It is alſo obſerved, that the chearful flow of the ſpirits, which ariſes from the hope of an happy event, inſpires women with an activity and reſolution which are extremely uſeful and favourable in that ſituation. In the time of a labour proceeding very ſlowly or irregularly, doubts and fears in the mind of the patient have an evident and great influence upon the pains; and when theſe are removed, and her reſolution confirmed, ſhe will go on with courage, and effects will be produced which would have been impoſſible if ſhe had remained in a ſtate of depreſſion. The intelligent practitioner will avail himſelf of the knowledge of theſe things, and by his diſcretion he will inſpire his patient with ſentiments which will enable her to go through difficulties, which to her feelings, and perhaps to his own judgment, appeared unſurmountable. It will alſo regulate the conduct of all her attendants and friends, and lead them ſtep by ſtep to co-operate in his views and intentions, which will at length terminate to the real advantage

tage of his patient, the ſatisfaction of her friends, and the increaſe of his own reputation.

10. *General Deformity.*

Many women who are gibbous or diſtorted in the courſe of the ſpine, have the *pelvis* well formed, and there are a few in general appearance perfectly ſtraight, who have yet ſome defect in the *pelvis*. Of the eaſe or difficulty of labours, depending upon the capacity or form of the *pelvis*, we are to ſpeak in another place. Thoſe who are gibbous, are not unfrequently aſthmatic, or have ſome infirmity which prevents their breathing freely, or the retention of their breath; and ſuch muſt ſuffer ſome inconvenience at the time of labour, though the action of the *uterus* may be proper, and all the parts concerned in parturition in a natural ſtate. For as both the inſtinctive and voluntary force, eſpecially the latter, are affected by the manner of breathing, and duly exerted only when the breath is retained, and this not being under ſuch circumſtances poſſible, of courſe the progreſs of the labour muſt be retarded. Should there be any reaſon to ſuſpect inflammation about the *thorax*, particular attention muſt be paid to it, otherwiſe we have only to give more time for the completion of the labour, and to wait for that effect from a repetition of feeble pains, which, without this inconvenience, would have been produced by a ſmaller number.

ON THE SECOND ORDER;

OR,

Thoſe Labours which are rendered difficult by the Rigidity of the Parts requiring Dilatation.

1. *Firſt Child.*

EVERY woman is expected to have a more tedious labour with her firſt, than with ſubſequent children, and the difference is uſually in proportion to the number which ſhe has had. Thus if a woman were twenty-four hours in labour with her firſt child, ſhe might be ſix with her ſecond, and with the reſt four or perhaps two; but from any general eſtimate of this kind there will be many deviations. It was before obſerved, that when women have had ſeveral children, the practitioner is often able to form a tolerably preciſe opinion of the kind of labour which they will be likely to have, and which may be as peculiar to their conſtitutions, in manner and time, as any other function of the body: and it is no more in our power to change this conſtitutional labour, as it may be called, than it is to alter the frame of the body, or any of the functions thereon depending.

The difficulty with which firſt labours are completed, not only depends upon the greater rigidity of the parts, or upon their re-action, but on the imper-

imperfection or irregularity of the action alſo, by which they are to be dilated; for this is generally far leſs perfect and regular in the firſt inſtance, than when the ſame office has been frequently performed. But though with firſt labours there is rather a greater chance of women wanting aſſiſtance, there is no ſpecific cauſe of difficulty, and they generally require only more time to be given for their completion.

2. *Advanced in Age.*

If a woman be far advanced in age at the time of having her firſt child, the difficulty attending her labour may be expected to be greater. At a certain time of life, every woman arrives at maturity, or that period when ſhe may be conſidered as having acquired the greateſt degree of perfection of which her frame is capable; when the inconveniencies of youth are paſſed, and thoſe of age are not arrived. This ſtate of perfection, the time of which will vary in different conſtitutions and climates, and which we may conclude to be beſt fitted for the act of parturition, may continue for many years. But if a woman ſhould be with child before or after this time of perfection, ſhe will be liable to difficulties; as in the one caſe ſhe would be ſcarcely able to bear without injury the changes ſhe muſt undergo; and in the other, the firmneſs which all the parts have acquired,

would

would leſſen their diſpoſition or capability of dilating: greater force therefore will be required, or the ſame degree of force muſt be continued for a a longer time. In this country there has ſeldom been any reaſon to ſuſpect women to be pregnant before they were able to bring forth children without any or much inconvenience; and for the prevention of ſuch as may attend the firſt act of parturition in thoſe who are advanced in age, we have been adviſed to order frequent and ſmall bleedings towards the concluſion of pregnancy, and that the patient ſhould ſit over the ſteam of warm water every night at bed time, and afterwards anoint the external parts with ſome unctuous application. Perhaps there is not authority for ſaying, that no advantage can be derived from the uſe of theſe means; but certainly the impreſſion made upon the mind of the patient by the novelty and peculiarity of the method, will, in patients of a timid diſpoſition, raiſe ſuch apprehenſions of danger and difficulty, as will over-balance the good which can poſſibly be derived from them. It is therefore better to omit the uſe of any ſuch means on this account, more eſpecially as it does not conſtantly happen, that the difficulty of labour is in proportion to the age of the patient when ſhe has her firſt child; that being in many caſes, as eaſy at forty years of age or upwards,

as

as if ſhe was only twenty-five. In the worſt labours ariſing from this cauſe, there is no peculiarity in the difficulties, but merely an increaſe of thoſe which are produced by the rigidity of the parts, and therefore only more time required for their completion.

3. *Too early Rupture of the Membranes.*

The premature rupture of the membranes, whether natural or artificial, has been often mentioned as the cauſe of many tedious or difficult labours. If it be allowed that the membranes containing the waters were intended to be the medium by which the *os uteri*, and other tender parts, ought to be dilated, ſome inconvenience muſt ariſe when theſe are broken and the waters diſcharged, the head of the child being ſubſtituted for them; which being a firmer and leſs accommodating body, cannot, for a long time be admitted within the circle of the *os uteri*, which will of neceſſity be dilated more untowardly and more painfully.

The difficulties ariſing from this cauſe, even in firſt labours, will be very much leſſened, if the patient be confined to a recumbent poſition, and we defer, as far as is in our power, the coming on of the action of the *uterus*, that the moſt perfect diſpoſition to dilate may be previouſly aſſumed by the parts. A longer time will certainly be required for completing labours attended with this circum-

ſtance only, but they may in general be more properly called lingering or tedious, than really difficult

4. *Oblique Poſition of the* Os Uteri.

The natural poſition of the *os uteri*, and that in which it is moſt conveniently diſtended, is at the center of the ſuperior aperture of the *pelvis*; for when thus placed, the effect of the action of the *uterus* is moſt favourably produced. But the *os uteri* is ſeldom found exactly in this ſituation, and in ſome caſes is projected on either ſide, and in others ſo far backwards, that it cannot be felt for many hours after the commencement of labour. This oblique poſition of the *os uteri*, to what direction ſoever it may tend, has been conſidered not only as a frequent, but as a general cauſe of difficult labours; and this doctrine was, at one period of time, taught and received in all the ſchools of midwifery in Europe. In every enquiry after knowledge, in almoſt any ſcience, opinions will be advanced, which ſometimes lead to further improvement; but when experience begins, opinions ſhould end. But if ſo much regard is paid to opinions as to found any certain practice upon them, and they ſhould prove erroneous, they become the ſource of much miſchief. The preſent caſe is a ſtriking example of the truth of this obſervation; for when it was preſumed that every difficult

cult labour was occaſioned by the oblique poſition of the *os uteri*, it was ſuppoſed neceſſary to remedy the inconvenience thence ariſing by manual aſſiſtance, and to drag the *os uteri* from its oblique to a central poſition during the time of every pain. The opinion of the oblique poſition of the *os uteri* being the chief cauſe of difficult labours, is now fully proved to be erroneous; and though it were oblique, ſuch poſition is not to be conſidered as a general cauſe of the difficulty, but as an accompaniment of ſome other primary cauſe. Thus when the *pelvis* is diſtorted, the *os uteri* is conſtantly found in an oblique ſituation, yet the difficulty of the labour, as well as the obliquity, are occaſioned by the diſtortion.

It muſt however be allowed, that ſome labours are procraſtinated by the oblique poſition of the *os uteri*, and that it is often combined with other cauſes of difficult labours, though, ſingly, it is ſeldom of ſufficient importance to be the cauſe of truly difficult ones. But when it does retard a labour, or accompany a difficult labour, it does not require any manual aſſiſtance, or that we ſhould retract it to a central poſition with reſpect to the cavity of the *pelvis*; both the thing itſelf and the difficulty thence ariſing will be obviated, without detriment or much trouble, if the patient be confined to a proper poſition. If, for example, the

os uteri be projected to the left ſide, ſhe ought to reſt as much as poſſible on the ſame ſide, and ſo of the right; if it be projected backwards, which is always the caſe when we cannot reach the *os uteri* in the beginning or early part of a labour, ſhe ought to lie upon her back. By this method the *fundus* of the *uterus*, conſtantly leaning or inclining to the ſide of the obliquity, will gradually but effectually project the *os uteri* more and more towards a central poſition.

Caſes have been recorded, in which it was ſaid that the *os uteri* was perfectly cloſed, and in which it has not only been propoſed to make an artificial opening inſtead of the cloſed natural one, but the operation has actually been performed. I do not know that I ſhould be juſtified in ſaying that ſuch caſes have never occurred, becauſe they have not occurred in my practice; but I am perſuaded that there has been an error in this account, and that what has been called a perfect cloſure of the *os uteri* has not been ſuch, but that we have been unable to diſcover it.

5. *Extreme Rigidity of the* Os Uteri.

Difficult, as well as tedious and very painful labours are frequently occaſioned by the unuſually rigid ſtate of the *os uteri*. The manner of, and the time required for its dilatation will depend upon two circumſtances; firſt, the degree of diſpoſition

ſition to dilate which it may have previouſly acquired; and ſecondly, the degree or force of the action exerted by the *uterus*. The former of theſe is, in general, far leſs perfect with firſt than with ſubſequent children, even preſuming that it is in its moſt natural ſtate; but when it aſſumes from any cauſe a ſtill greater indiſpoſition to dilate, of courſe the labour will be both more difficult and tedious. In a firſt labour it not unfrequently happens, that the *os uteri* may not be dilated in leſs than twenty-four or even forty hours, when the reſt of the labour may be completed in four, or perhaps a ſhorter time, yet the very ſame perſon may have the whole proceſs with her next child completed within ſix hours.

We have before taken notice of the advantages ariſing from the changes in the ſtate of the ſoft parts being perfected, before the acceſſion of labour; but when theſe are as favourable as can be wiſhed, by the very action of the *uterus* preſſing its contents upon the *os uteri*, and much more frequently by attempts to dilate it artificially, this part becomes inflamed, and the indiſpoſition to dilate is increaſed according to the degree of inflammation. The inflamed ſtate of the part is often indicated by its heat and dryneſs, but whenever it is extremely rigid, and there has been a long continued action of the *uterus*, with little or no advantage, the impediment

diment to the progreſs of the labour being clearly occaſioned by the reſiſtance made by the *os uteri*; I believe it is always right to conſider that part as inflamed. If this be allowed, inſtead of attempting to dilate it artificially, it is the proper object of art, to recover in the firſt place the natural diſpoſition to dilate, and then the pains of labour will be equal to the purpoſe. With this view it will be neceſſary to take away ſome blood, to give cooling medicines and drinks, to direct emollient clyſters to be frequently injected, and, inſtead of uſing any means with the intention of increaſing the force of the pains, to confine the patient to a recumbent poſture ; and to gain, if it were in our power, a ſuſpenſion of the labour, till the inflammatory diſpoſition be removed, when the dilatation will proceed leſs painfully and more ſpeedily.

When a labour comes on prematurely, or before the parts have acquired their dilatable ſtate, as it may be called, the poſition of the *os uteri* will be very different. In ſome caſes it begins to dilate when it is high up in the *pelvis*, but in others, eſpecially when the *pelvis* is, in compariſon with the child, very large, the *os uteri* may be protruded very low down, before there is any degree of dilatation, though it be ſpread ſo thin over the head of the child, or the membranes, as to give the feel of the membranes alone. If, under

theſe

theſe circumſtances, the external parts ſhould be much relaxed, and the pains at the ſame time ſtrong, it is poſſible for the head of the child to be expelled though enveloped in the *os uteri*, and much miſchief may be thereby occaſioned *. For the prevention of this accident, when there is any reaſon to dread it, it will be proper for the patient to be confined to an horizontal poſition, and for the practitioner to reſtrain the advancement of the head, till it is cleared of the *os uteri*; or, if the caſe has actually happened, to uſe all the means we ſafely can, to replace it, and extract the head. When the *pelvis* is large and the head of the child, being moved from its reſting place upon the *pubis*, drops by its own weight into the lower part of the cavity of the *pelvis*, the accident often becomes a cauſe of a *procidentia* or *prolapſis* of the *uterus*, which cannot, as far as I know, be always prevented. All that art dictates to be done at the time of labour, is to render this as ſlow and gradual as poſſible, and after delivery, to confine the patient to her bed for a longer time.

6. *Uncommon Rigidity of the external Parts.*

The ſtate of the external, as well as of the internal parts is very different in different women, both in the beginning and in the progreſs of labours. Even

* Os uteri aliquando prolabitur.

Ruscii. Obſ. Anatom. XXV.

Even in firſt labours they readily yield in ſome women, ſo as to allow the head of the child to paſs through them with great facility and ſafety, but in others they are extremely rigid and unyielding, and withſtand the action of the *uterus*, though very ſtrong, for a very long time; and then do not dilate without great danger of a laceration. In firſt labours a more difficult dilatation than in others is always to be expected, and more care is required to prevent a laceration; the ſtate of theſe parts is however very different, and they require ſome attention in every labour. There ought to be, and uſually is a correſpondence between the ſtate of the parts and the power of the pains; but in ſome caſes the external parts are rigid when the pains are feeble, whilſt in others, when the parts are diſpoſed to dilate, the pains are exceedingly ſtrong, puſhing with unabating force, the head of the child, ſo that the parts muſt either dilate or be lacerated. Of many of theſe circumſtances we have already ſpoken.

In firſt labours the external parts may require one, or ſeveral hours continuance of the pains, before they are ſufficiently dilated to allow the head of the child to paſs through them without danger of laceration; but the difficulty thence ariſing does not ſeem to require, or to be relieved by our interpoſition, further than to prevent injury as far as

that

that is in our power, by too ſpeedy an excluſion of the head of the child, in the manner before adviſed. The merit of our conduct under theſe circumſtances will be chiefly negative; for as we cannot give to the parts their diſpoſition to dilate, and ought not to dilate them artificially, there only remains for us to wait the due time: art being more frequently exerciſed on ſuch occaſions in remedying the evils which art has produced, than in rectifying thoſe which are neceſſary or unavoidable. It is alſo to be obſerved, when the head of the child paſſes through the inferior aperture of the *pelvis* with difficulty, though the external parts are preſſed upon with conſiderable force, that the impediment to the delivery does not ariſe from the reſiſtance made by theſe, but more properly from the elongation or bending of the ſpinous proceſſes of the *iſchia*, and the labour is then to be referred to the next order.

ON THE THIRD ORDER;

OR,

The Cauſes of difficult Labours from the Diſproportion between the Head of the Child and the Cavity of the Pelvis.

1. *Original Smallneſs of the* Pelvis.

THE cavity of the *pelvis* in women in general, bears a certain proportion to the common ſize of the heads of children; yet as they both admit of conſiderable variation, independent of diſtortion or diſeaſe, it is poſſible that a woman with a *pelvis* rather under the common ſize, may conceive a child far beyond the uſual dimenſions; and when this is the caſe, there muſt of courſe be greater difficulty at the time of parturition. When therefore the ſmallneſs of the cavity of the *pelvis*, and the largeneſs of the head of the child are mentioned, they are to be conſidered as relative and not as poſitive terms; becauſe the *pelvis* of ſome individual woman may be ſo large as to ſuffer the largeſt head of a child of which we have any example, to paſs through it; and the ſmalleſt head may be eſteemed large, if compared with a yet ſmaller *pelvis*.

But though a labour may from either of theſe cauſes, ſeparate or combined, be rendered tedious and

and painful ; as in conſequence of the action of the *uterus*, the head of a child rather larger than ordinary will be compreſſed into a much leſs compaſs, and moulded to the form as well as the dimenſions of the cavity of the *pelvis*, there is not uſually occaſion for the aſſiſtance of art, if the labour be in other reſpects natural ; but we are to wait patiently for thoſe changes, which in due time may be reaſonably expected, and ſcarcely ever fail to take place.

Diſtortion of the Pelvis.

On the cauſes, kinds, and degrees of diſtortion of the *pelvis* we have already ſpoken very fully*. The effects produced, or the impediments occaſioned by this diſtortion, at the time of parturition, will ſomewhat depend upon the part diſtorted, but chiefly on the degree of change in, or diminution of the dimenſions of the cavity, by which the relation between it and the ſize of the head of the child is perverted or deſtroyed. Diſtortion of the *pelvis* at the ſuperior aperture creates an obſtruction to the paſſage of the head of the child, which will be overcome with more difficulty by the powers of the conſtitution, and which will be more inconveniently managed by art, than an equal degree of obſtruction in the lower part of the *pelvis*. The greatneſs of the difficulty will

* See the Introduction, Chap. I. Sect. X.

nevertheleſs chiefly depend upon the degree; and in the various degrees which are found to occur, the practitioner may ſee a cauſe of every kind of difficulty which he may meet with in practice. A ſmall degree of diſtortion may occaſion a difficult labour of that kind which may not be an object proper for the exerciſe of his art, but which is at length completed by the long continued action of the *uterus*, firſt moulding and reducing the form and ſize of the head, 'till it is adapted to that of the *pelvis*, and then forcing it through the diminiſhed cavity. Or, the degree of diſtortion may be ſuch, that notwithſtanding all the reduction of the head, which can be accompliſhed by the efforts of the conſtitution, there does not remain ſufficient power to expel the head; but it may be brought into ſuch a ſituation, as to afford us the hope of ſafely delivering the patient by art, and of preſerving the life of the child. Or, the diſtortion may be ſo conſiderable, that it is impoſſible for the head of the child to be expelled without leſſening it, and the child muſt be ſacrificed to the ſafety of the parent. Or, laſtly, the diſtortion may be ſo great, that if the head of the child were leſſened, there would not be a poſſibility of extracting it, and we muſt either ſubmit to loſe the lives both of the parent and child, or attempt to ſave that of the latter,

ter, by the *cæſarean* ſection, or by ſome other operation equally hazardous.

In thoſe caſes in which there is a very great degree of diſtortion of the *pelvis*, the impoſſibility of the head of the child paſſing through it, is ſelf-evident, and readily diſcovered on the firſt examination *per vaginam*. But in leſs degrees of diſtortion, no judgment can be formed *à priori* whether the head can paſs or not; and we ought to defer any determination upon the neceſſity or propriety of giving aſſiſtance, till we are convinced that the difficulty cannot be overcome by the powers of the conſtitution; and the conviction is not ſatisfactory till the efforts are diſcontinued or ceaſe entirely. Degrees of difficulty to our apprehenſion inſurmountable, are often overcome by the mere force of the pains, and ſo long as theſe continue vigorous, we are not to deſpair of a happy event; but encouraged by experience, and ſupported and juſtified by moral as well as ſcientific principles, we muſt rely upon the advantages which time and proper conduct may afford.

The far greater part of thoſe labours which are rendered difficult by the diſtortion of the *pelvis*, only require a longer time for their completion. Some however demand the aſſiſtance of art; and when that is the caſe, the kind of aſſiſtance muſt vary according to circumſtances. But theſe will be

be more particularly ſtated when we come to ſpeak of the various operations in the practice of midwifery.

3. *Head of the Child uncommonly large; or too much oſſified.*

No arguments are required to prove that a ſmall body will paſs through a ſmall ſpace with more facility than one that is large; the ſize of the body being ſuppoſed to bear a relation to the capacity of the ſpace. Of courſe, the larger the head of the child at the time of birth is, with the greater difficulty will it be expelled; but if the *pelvis* be not diſtorted and of a common ſize, we may always expect that the woman will be ultimately delivered by her natural pains, if there be no other cauſe of difficulty, though a longer time may be required for the completion of the labour.

It is not merely from the ſize of the head of the child that a labour may be rendered more tedious, more painful, or even truly difficult. The connection of the bones of which the head is conſtructed, is ſuch as to allow of conſiderable diminution and change of form in its paſſage through the *pelvis*. The extreme degree of diminution and change which it is generally capable of undergoing, is perhaps impoſſible to determine; but it does not ſeem unreaſonable to conjecture that it may be reduced to one third of its original ſize, without the

the deſtruction or even injury of the child from the compreſſion; the alterations being ſo gradual. The advantages gained by this compreſſion of the head in all caſes of difficulty, occaſioned by the natural ſmallneſs or leſs degrees of diſtortion, are wonderful, as was before obſerved. But as there is great difference in the degree of oſſification in the heads of different children at the time of birth, thoſe heads which are moſt perfectly oſſified, muſt of courſe be capable of undergoing the leaſt change; and the degree of change which they can undergo, muſt be produced with the greateſt difficulty, and purchaſed at the expence of more ſevere or longer-continued pains. On this account a large head, with a very imperfect oſſification is often found to paſs through a *pelvis* which might be conſidered as relatively ſmall, with more eaſe than a ſmaller head in which the oſſification was more complete; and yet the cauſe of the delay may not be diſcovered before the birth of the child. In caſes of difficult labour proceeding from theſe and ſimilar cauſes, it not being in our power to chuſe the circumſtances, all that we can do is to manage ſuch as occur in the moſt prudent manner; and we have commonly to wait only for thoſe effects to be produced which may be eſteemed as conſequences of the efforts of the conſtitution fairly exerted;

exerted; and we are never to deſpair ſo long as the efforts are properly continued.

4. *Head of the Child enlarged by Diſeaſe.*

Two diſeaſes have been mentioned by writers as the cauſe of this enlargement, viz. tumours growing on the heads of the children, and the hydrocephalus, but either of theſe very rarely occur. With reſpect to the firſt, it is ſaid, that when the tumour, of whatever kind it may be, is of ſuch a ſize as to be an impediment to the birth of the child, it ſhould be opened or extirpated, and that the operation is not only perfectly conſiſtent with the ſafety of the mother, but frequently with that of the child alſo. Of the exiſtence of theſe tumours the inſtances recorded do not leave a doubt*; nor of the poſſibility, when they are large, of their obſtructing the delivery of the patient: but of their extirpation with ſafety to the child, I ſhould very much doubt, though no human being can circumſcribe poſſibility. As it is the duty, ſo it will always be the ſolicitous wiſh of every practitioner to preſerve a life, when it is in his power.

The

* Partus difficilis a tumoribus, è capitibus fœtuum dependentibus.

Ruysch. Obſ. Anatom. LII.

The integuments of the head of the child, from long continued compreſſion, may become ſo much tumefied, and altered from their natural form and ſtate, as ſometimes to give the feel of a diſtinct and adventitious tumour; and yet ſuch may not require any aſſiſtance of this kind. But when there really any unnatural tumours or excreſcences, the point of practice would depend upon the degree of impediment to the paſſage of the head which might be thereby occaſioned; or upon the nature of the tumour, whether it could be extirpated, or only admitted of an opening to be made into it for the purpoſe of leſſening its bulk; or if neither of theſe could be done with propriety, by acting as if no ſuch tumour exiſted.

With regard to the hydrocephalus, which if of a certain ſize, would certainly be a great obſtacle to the delivery, this is not readily to be diſtinguiſhed in the early part of a labour; becauſe the membranes of the *ovum* are in ſome caſes, as thick as the integuments of the head in others. But if we were aſſured that an hydrocephalus did exiſt, there would not always be occaſion for us to act; as it is far more eligible to wait ſo long as to give time for the expulſion of the head of the child by the natural efforts, if they are equal to that effect. Should the head be ſo much enlarged by the quan-

tity of fluid contained in it, that it was too large to paſs, even in that caſe the integuments will generally burſt by the force of the pains. But when the fact is aſcertained, and the labour is rendered extremely tedious and lingering from this cauſe, it does not ſeem reaſonable to allow the patient to undergo ſuch long continued pains as when we have any hope of ſaving the life of the child. When we have determined upon the neceſſity or propriety of delivering the patient, all that generally is neceſſary to be done, is merely to perforate the integuments of the head, immediately after which the water flowing away, the head is ſpeedily expelled, and the birth ſoon and eaſily completed.

5. *Face inclined towards the* PUBES.

On a former occaſion we have mentioned that there are four varieties in the poſition of the head of the child at the time of birth. The firſt when the *vertex* or hindhead is turned towards the *pubes:* the ſecond when the face is turned towards the *pubes :* the third, when the head preſents with one or both arms: the fourth when the face preſents. The firſt of theſe may be conſidered as the ſtandard poſition, becauſe it is not only the moſt common, but the moſt eaſy alſo; the head of the child being ſo conſtructed as to admit, in that

that poſition, of the greateſt and moſt ready compreſſion and adaptation to the *pelvis*. But the other poſitions are not to be conſidered as conſtituting labours of any other claſs, but as varieties of the natural poſition, though they muſt of neceſſity occaſion delay in all labours in which they happen; either becauſe a portion of that ſpace which ſhould be wholly devoted to the head of the child, is occupied by ſome other part, or becauſe the bones of the *cranium* more ſlowly and imperfectly conform to the ſize or ſhape of the *pelvis*. When the face of the child is inclined towards the *pubes*, the peculiarity of the poſition is not uſually diſcovered in the early part of the labour, nor even when the firſt ſtage is completed, the practitioner being generally ſatisfied with knowing that it is a preſentation of the head. But when there is any unuſual delay, perhaps without any very obvious cauſe, it then becomes a duty to inveſtigate and explore the cauſe, and it is not a very unfrequent thing to find the face turned towards the *pubes*. This poſition is moſt readily known by our being able to feel the greater fontanelle in a common examination, though it is alſo proved by other circumſtances relating to various parts which it is unneceſſary to point out. When this poſition is found, it does not follow that any thing ought to be done; but we

are to wait a longer time; becauſe as experience has proved that the head in this poſition will be ultimately expelled by the natural efforts, ſo long as theſe are continued, no artificial help ſhould be given or attempted. But when the pains ceaſe, or when we are fully convinced that they are unequal to the exigencies of the caſe, ſuch aſſiſtance muſt be given as the ſituation of the parent may allow and require.

With this poſition of the head, beſides the greater length of time which may be required for moulding and expelling it, there will alſo be a greater diſtention of the external parts, becauſe the hindhead cannot be cleared of the *perinæum* before the chin has deſcended as low as the inferior edge of the *ſymphyſis* of the *oſſa pubis*; by which an inconvenience is produced equal to what an increaſed depth of the cavity of the *pelvis* would occaſion, or a deficiency of the arch of the *pubes*. There are alſo ſome peculiarities in the operation when we deliver with the *forceps* or *vectis*; but of theſe we ſhall ſpeak when we come to the directions for the uſe of thoſe inſtruments.

6. *Preſentation of the Face.*

The preſentation of the face is diſcovered by the general inequalities of the preſenting part, or by the diſtinction of the particular parts, as the eyes, the

the noſe, mouth, or chin. In this preſentation the child will generally be expelled by the natural efforts, but a much greater length of time will be required for the completion of the labour, for the reaſons mentioned under the laſt cauſe, which are in this perhaps increaſed. But the child may be born without any injury, though the face will ſometimes be ſwelled in an aſtoniſhing manner, and the external parts of the mother being infinitely more diſtended than in a natural poſition, greater care is neceſſary to prevent their laceration.

If after the long continuance of the labour we are convinced that extraordinary aſſiſtance is required, then the ſame obſervation may be made with regard to the uſe of the *forceps* or *vectis* as in the preceding article; but of the peculiar conduct which it may be neceſſary to purſue, we ſhall ſpeak hereafter.

7. *Head preſenting with one or both Arms.*

Though the head ſhould preſent with one or both arms, experience hath fully proved that a woman may be delivered by the natural efforts with ſafety to herſelf, and without prejudice to her child, if the *pelvis* be well formed. But as a part of the cavity which ſhould be appropriated to the head will be filled by the additional bulk of the arms, there will be an evil ſimilar to what would

would be produced by a ſmall, or by a ſomewhat diſtorted *pelvis*; and if the *pelvis* be barely of ſufficient dimenſions to allow the head of the child to paſs through it, then the additional bulk of the arms may render the paſſage of the head impoſſible; or the labour may be ſo much retarded as to make it what is properly called difficult.

In the beginning or in the courſe of a labour of this kind, the practitioner will often be able to return the preſenting arm or arms beyond the head, without any detriment; but he muſt be very careful not to ſolicit the deſcent of the arm before the head, leſt he ſhould change the whole ſituation of the child, and convert that which would have been only a variety of a natural into a preternatural labour.

In ſome caſes we are enabled to feel the head, a foot and an arm at the ſame time, and it will then be expedient to graſp and bring down the foot, and to deliver in that manner. But it behoveth us to diſtinguiſh very cautiouſly between a hand and a foot, becauſe the miſtake would lead us to the neceſſity of turning the child, an operation which would otherwiſe not have been required.

In preſentations of the head together with one or both arms, unleſs there ſhould be any particular reaſon for our wiſhing to turn the child, the propriety of which muſt reſt upon the

the judgment of the practitioner, we are to be prepared, and wait with patience for the expulsion of the child by the natural efforts; or when we are convinced by their failure or cessation, that these are not equal to the effect, to give such assistance as the nature of the case may require; and whatever the instruments which it may be necessary to use, are, their action will be nearly the same, as if the arms had not been in the *pelvis*.

Whether these cases are completed by the natural efforts, or by the assistance of instruments, the arms of the child will be very much tumefied or bruised, and the child is for a certain time as unable to use them as if they were paralytic. But by the help of fomentations and poultices, and by moderate motion and gentle friction, their natural appearance and use are recovered in the course of a few days; at least I have not seen an instance of any permanent mischief from this cause.

When the extremities present at the time of birth, there is often a doubt whether the child be living or not, unless it can be perceived to move. Now the fact may be ascertained by the consequences of any violence, as no part of a dead child can either tumefy or change its colour, however compressed it may be, and only shews one kind of violence, that of solution of continuity.

ON THE ~~THIRD~~ fourth ORDER;

OR,

The Diſeaſes of the ſoft Parts which occaſion difficult Labours.

1. *Suppreſſion of Urine.*

THE various affections of the urinary bladder during pregnancy, have been already mentioned. On the commencement of labour, it was ſaid that an involuntary diſcharge of the urine might be occaſioned; but there is more frequently a difficulty in voiding it, and ſometimes there is a total ſuppreſſion. The inconveniencies thence ariſing will be according to the quantity of urine retained, and to the length of time that the bladder may continue diſtended. The firſt will hinder the proper action of the *uterus*, and will be an impediment to the paſſage of the head of the child, which will not only have a leſs ſpace to paſs through, but be projected alſo out of its proper direction; and by the latter the bladder itſelf may be injured, in conſequence of the preſſure which it undergoes from the repeated actions of the *uterus*, by which it may become inflamed; and in ſome caſes in which relief was not given, it has even been ruptured, the patient being thereby deſtroyed*.

In

* See Chapman, page 143, ſee alſo Medical Obſervations and Inquiries, vol. 4.

In the beginning and courſe of labours, eſpecially of thoſe which are tedious or difficult, great attention is therefore to be paid to the ſtate of the bladder; the patient is to be frequently admoniſhed to void the urine; and in all caſes of doubt we are not to confide in any repreſentation, but are to be ſatisfied only with ſeeing the quantity of urine which has been diſcharged; error being often committed by confounding the waters of the *ovum* with the urine. By the application of the hand to the *abdomen* of the patient, it is often an eaſy matter to diſtinguiſh between the tumour of the *uterus*, and the flattened but circumſcribed tumour of the bladder, which lyes below and before that formed by the *uterus*: the patient herſelf is frequently capable alſo of diſtinguiſhing that pain which is the conſequence of the action of the *uterus*, from that which is occaſioned by the preſſure upon the diſtended bladder.

To remove that obſtacle to the paſſage of the child, which may be produced by the diſtention of the bladder; and to prevent any injury to the bladder itſelf, it is neceſſary to draw off the urine with the catheter, whenever it is retained beyond a certain time or degree. In ſlighter caſes the common catheter will anſwer the purpoſe; but when the head has been long wedged in the *pelvis*, there is not ſufficient room for that to paſs, even though

 the

the head be elevated or preſſed towards the hollow of the *ſacrum*. But in ſuch caſes the flattened catheter contrived by my very w rthy and ingenious friend Dr. *Chriſtopher Kelly*, will often paſs with eaſe and convenience. But whatever catheter it may be found expedient to uſe, or however neceſſary it may be to draw off the urine, we are to take care not to introduce the inſtrument with much f rce, becauſe we may do as much poſitive miſchief with the inſtrument, as we aim or wiſh to avoid. In ſome caſes, though we are aſſured that there is a great quantity of urine in the bladder, the head of the child is ſo immovably locked in the *pelvis*, that we cannot poſſibly introduce any catheter, and are therefore obliged to ſubmit to the inconveniencies which may follow the diſtention of the bladder. But if care was taken in the beginning of labour, this does not often happen; nor is it always attended with the evils we might dread, the head of the child being at length preſſed ſo low as to allow the urine to eſcape, though very ſlowly. But in all ſuch caſes it will be prudent and neceſſary to introduce the catheter before or ſoon after the expulſion of the *placenta*, that we may prevent the miſchief which might be expected to follow the diſtention of the bladder, if that was to remain many hours after the delivery.

2. *Stone*

2. *Stone in the Bladder.*

If a woman ſhould have a ſtone in the bladder, there would be no reaſon why ſhe ſhould not be with child, and proceed through her pregnancy without moleſtation. Nor, if it was of a ſmall ſize, would it be any impediment to her delivery; though if it was large, the head of the child could not paſs through the *pelvis*, or not without much trouble and inconvenience. Of this caſe I have never met with an inſtance in practice, and may therefore be allowed to conſider it as very rare, though there does not appear to be any reaſon for judging it impoſſible. I have reflected upon the caſe, and upon the conduct which it might be neceſſary to purſue, if it had occurred to me; and though it behoves me to ſpeak with reſerve, and to be ſatisfied if little confidence be placed in what I advance, it is better on the whole to give my opinion, than to leave the matter without making mention of it, or conſidering it.

In the beginning of labour, ſuppoſing there is a ſtone of a large ſize in the bladder, one of theſe conſequences muſt follow; the head of the child muſt advance before the ſtone, or the ſtone muſt be protruded before the head of the child. If the former ſhould be the caſe, we might preſume that the labour would proceed in a natural way, as if the ſtone did not exiſt; there would, at leaſt, be

no demand for the aſſiſtance of art, and no room to exerciſe it. But if the ſtone ſhould be protruded before the head of the child, our conduct muſt be regulated by the circumſtances. It ſeems reaſonable that we ſhould firſt attempt to raiſe the head in ſuch a manner, and to ſuch a degree as to allow us to return the ſtone beyond the head. But if that ſhould be found impracticable, either becauſe the head of the child was too far advanced, or firmly locked in the *pelvis*, we muſt then weigh the evils to be apprehended, from the compreſſion of the ſoft parts, that is, of the anterior part of the *vagina*, and the poſterior part of the bladder, between the head of the child, and the ſtone in the bladder; beſides the diſtraction of the parts which muſt be neceſſarily occaſioned. Whatever conduct we might purſue muſt be attended with ſome evils, and as it is only in our power to chooſe the leaſt of theſe, it ſeems better even in the time of labour, to ſuffer the evils which might follow the performance of the operation for extracting the ſtone, than to ſuffer thoſe which may be occaſioned by the compreſſion. With regard to the operation, there is both leſs difficulty and danger in women than in men, though theſe will in ſome meaſure depend upon the ſize of the ſtone. In ſome caſes alſo in which the ſtone is contained

tained in a diſtinct cell of the bladder, and could not therefore be graſped or extracted by the *forceps* when introduced; it has been propoſed to make an inciſion through the anterior part of the *vágina*, directly upon the ſtone. This operation, which may in ſome caſes be eligible, has been performed twice, by two ſurgeons of great ability and eminence in the country, and as I was informed, without occaſioning the effect to be apprehended; that of leaving a fiſtulous opening by which the urine would have been voided for the remainder of the patient's life.

3. *Excreſcences of the* Os Uteri.

Excreſcences of the *os uteri* are uſually combined with ſome degree of ſcirrhous diſpoſition of that part. It was before obſerved that excreſcences do not prevent conception, or diſturb pregnancy; but according to their ſize and ſituation, they muſt neceſſarily be obſtacles at the time of labour. The following caſe, which was curious in the circumſtances attending, as well as the nature of the complaint, I may be permitted to tranſcribe, as it was an example of an excreſcence of the largeſt ſize I have ever ſeen.

In June 1770, I was deſired to ſee a patient in the eighth month of her pregnancy, who in the preceding night had a profuſe hemorrhage. Her countenance ſhewed the effects of the great loſs of

blood

blood ſhe had ſuſtained; and from the repreſentation of the caſe given me by the gentleman who was firſt called in, I concluded that the *placenta* was fixed over the *os uteri*. On examination I felt a very large fleſhy tumour at the extremity of the *vagina*, repreſenting and nearly equalling in ſize the *placenta*, which I judged it to be. Had this been the caſe, there could not be a doubt of the propriety and neceſſity of delivering the patient ſpeedily; and with that intention I paſſed my finger round the tumour, to diſcover the ſtate of the *os uteri*; but this I could not find: and on a more accurate examination, I was convinced that this tumour was an excreſcence growing from the *os uteri*, with a very extended and broad baſis. I then concluded that the patient was not with child, notwithſtanding the diſtention of the *abdomen*, but that ſhe laboured under ſome diſeaſe which reſembled pregnancy; and that the hemorrhage was the conſequence of the diſeaſe. A motion which was very evidently perceived when I applied my hand to the *abdomen*, did not prevail with me to alter this opinion.

It was of all others a caſe in which a conſultation was deſirable, both to decide upon the diſeaſe, and the meaſures which it might be neceſſary to purſue; and ſeveral gentlemen of eminence were called in. That ſhe was actually pregnant, was proved to the ſatisfaction of every one; and it was then concluded,

concluded, that ſuch means ſhould be uſed as might prevent or leſſen the hemorrhage, and that we ſhould wait and ſee what efforts might be naturally made for accompliſhing the delivery.

No very urgent ſymptom occurred till the latter end of July, when the hemorrhage returned in a very alarming way, and it was thought neceſſary that the patient ſhould be delivered. There was not a poſſibility of extirpating the tumour, and yet it was of ſuch a ſize as to prevent the child from being born in any other way than by leſſening the head. This was performed; but after many attempts to extract the child, the patient was ſo exhauſted, that it became neceſſary to leave her to her repoſe, and very ſoon after our leaving her, ſhe expired.

We were permitted to examine the body. There was no appearance of diſeaſe in any of the abdominal *viſcera*, or on the external ſurface of the *uterus*, which was of its regular form; and when a large oval piece was taken out of the anterior part, the child, which had no marks of putrefaction, was found in a natural poſition. An inciſion was made on each ſide of the *cervix* to the *vagina*, and then a large cauliflower excreſcence was found growing to the whole anterior part of the *os uteri*. The *placenta* adhered with its whole ſurface; ſo that the blood which ſhe had loſt muſt have been diſcharged from the tumour.

The

The propriety or advantage of a practice by which the life of neither the parent or child was preſerved, ought to be conſidered; but ſuch caſes occur ſo rarely, that there is always room for animadverſion, when they are concluded. Yet the general principle of its being ever our duty to preſerve both their lives, if poſſible; or to preſerve that of the parent; or, if ſhe cannot be preſerved, then to ſave the child, if it is in our power; would have been a better guide on this occaſion, than that which was followed.

Excreſcences of a ſmaller ſize are not unfrequently met with in practice; and as even theſe are uſually accompanied with ſome degree of ſcirrhous diſpoſition of the *os uteri*, more time is required for the completion of the labours. It is alſo to be remarked, that in caſes of this kind, there is often a long continuance of the pains without any ſenſible effect; but all at once, the rigid *os uteri* yields and dilates ſpeedily and unexpectedly, or perhaps in ſome inſtances is lacerated. During labours of this kind, and after delivery alſo, the great object is to guard againſt all cauſes of inflammation, at firſt perhaps local, but afterwards extending to other parts, connected or readily conſenting with the *uterus*, and more immediately neceſſary for the functions of life.

4. *Cicatrices*

4. *Cicatrices in the* Vagina.

From diſeaſes of the ſoft parts, eſpecially from violence ſuſtained in former hard labours, the *vagina* may have become ulcerated; and when care was not taken to prevent the ſurfaces from abiding in contact with each other, the oppoſite ſides might adhere in different degrees, according to the depth and extent of the ulceration. When the ulceration is ſlight, and the inflammation is not ſo great as to bring the tumefied parts into contact, after a certain time they heal; but cicatrices being formed, the diameter of the paſſage is leſſened, and the part is left with a diſinclination to yield on any future occaſion. In ſome caſes a ſuperficial ſlough has been thrown off from the whole internal ſurface of the *vagina*, and cicatrices of an irregular kind formed from the *os uteri* to the external orifice. In other caſes there has been a cicatrice only at one part, and if this ſhould happen near the external orifice, the contraction is ſuch as to mimick an unruptured *hymen*.

Amidſt a great variety of caſes of cicatrices in the *vagina*, I have not met with one example in which they were able to withſtand the preſſure of the head of the child, if the pains were of the cuſtomary ſtrength. The labours have indeed been retarded, but they have terminated favourably. But when the difficulty ariſing from this cauſe

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has been combined with other cauſes, it muſt of courſe have added to the trouble which the patient would otherwiſe have undergone. Or, if the pains ſhould ceaſe before the labour is completed, then ſuch aſſiſtance muſt be given as the caſe may require; being on our guard that we do not offer aſſiſtance before there are proofs of the neceſſity, and we are aſſured that the difficulty cannot be overcome by the natural efforts.

5. *Adheſions of the* Vagina.

Adheſions of the *vagina* are occaſioned by an increaſed degree of the ſame cauſes as thoſe which occaſion cicatrices. There may be an adheſion in women who were never pregnant, or it may be the conſequence of a ſlough thrown off after a former labour, with or without the uſe of inſtruments*. Caſes of adheſions of this kind are commonly mentioned as of very eaſy management, nothing more being required, it is ſaid, than to ſeparate the united ſurfaces with a knife, and to prevent their re-union by the introduction of a tent or canula for that purpoſe. It is true, when the adheſion has taken place near the external orifice, that it is in

* I have been informed of the caſe of a patient who was in the hands of a very ſkilful practitioner, in whom, after her delivery, which was not attended with any circumſtances of peculiar difficulty, the whole internal ſurface of the *vagina*, and all the external parts entirely ſloughed away.

in general managed without difficulty; but when the parts adhere high up in the *vagina*, then it appears from the ſtructure that there is need of the greateſt circumſpection, leſt on the one hand we perforate the bladder, or, on the other, the *rectum*, all theſe parts being drawn cloſe together. When therefore an adheſion of this kind takes place after the age of menſtruation, it is better to ſuffer the menſtruous diſcharge to be collected; and after a certain time, the part where the inciſion ought to be made, will be pointed out.

It is poſſible for an adheſion to take place after a woman is become pregnant; of courſe when labour came on, the contents of the gravid *uterus* would be impelled againſt the adhering part, which would either ſeparate or reſiſt the excluſion of the child. In the former caſe nothing would be required to be done; but in the latter, it would be neceſſary to divide the united parts by an inciſion, with great care, and to a certain degree, leaving the full ſeparation to be made by the membranes containing the waters, or by the head of the child.

6. *Steatomatoſe Tumours.*

Of this cauſe of difficult labours I have never met with an inſtance in my own practice; but the following caſe was communicated to me by a gentleman whoſe authority is unexceptionable.

A lady, after the birth of her eighth child, fell into a ſtate of bad health, with many painful and troubleſome ſymptoms, but no marked diſeaſe. Theſe were by ſome phyſicians conſidered as nervous, by others as ſcorbutic, and by others as rheumatic, or of a gouty nature. A variety of medicines were given, and means tried for her relief, but without any good effect. At the expiration of two years ſhe became again pregnant. All her former labours had been very eaſy and natural; but when Dr. ——— was called at the commencement of this, he found an obſtruction at the ſuperior aperture of the *pelvis*, which he believed could only be occaſioned by the projection of the loweſt lumbar *vertebræ*, or the upper part of the *ſacrum*. It was then ſuppoſed that ſhe had the *oſteoſarcoſis*, of which her complaints had been the ſymptoms. It was impoſſible for her to be delivered in any other way than by leſſening the head of the child. She died on the fourth day after her delivery. Leave was given to open the body, and when the *pelvis* was examined, the tumour which was imagined to be a projection of the bones, was found to be an excreſcence of a firm, fatty ſubſtance, ſpringing from one ſide of the upper part of the *ſacrum*, and paſſing acroſs ſo as to fill up the greater part of the ſuperior aperture of the *pelvis*.

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It is probable that the complaints of this lady were occaſioned by the preſſure of this tumour upon the *uterus*; and had the real ſtate of the caſe been known before the time of labour, or even during her labour, it does not appear to have been proper, or within the bounds of the art, to have attempted or afforded her any other aſſiſtance.

7. *Enlargement of the* Ovaria.

Diſeaſes of the *ovaria*, both of the ſcirrhous and dropſical kind, eſpecially the latter, are very frequent. Either of theſe muſt generally prevent conception; but as one of the *ovaria* may be very much diſeaſed, when the other is in a perfectly healthy ſtate, inſtances ſometimes occur of women becoming pregnant under ſuch circumſtances, and then the enlarged *ovarium* may produce inconveniencies during pregnancy, or become an obſtacle to the progreſs of labour.

With the hiſtory of two caſes of this kind, I was many years ago favoured by Dr. *John Ford*, a gentleman of great ſkill and experience. In the former he was ſurpriſed to find a large and firm tumour lying between the *rectum* and *vagina*, and filling up all the concavity of the *ſacrum*, and a conſiderable ſhare of the cavity of the *pelvis*. Being convinced of the impoſſibility of the child paſſing by this tumour, which did not yield or diminiſh by the force of the pains, it was determined

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that the patient ought to be delivered by leſſening the head of the child. The operation was performed with great care, but the patient died at the end of three weeks. When the body was opened, the tumour was found to be an encyſted dropſy of the *ovarium*, in which there was a conſiderable quantity of hair.

In the latter caſe, which in all its circumſtances reſembled the former, inſtead of leſſening the head of the child, a trocar was paſſed through the poſterior part of the *vagina*, directly into the tumour. A large quantity of water was immediately diſcharged, the tumour ſubſided, and a living child was born without any further aſſiſtance. This patient recovered from her lying-in, but ſome time after becoming hectic, ſhe died at the end of about ſix months, though from the ſymptoms it did not appear that the fever was occaſioned either by the diſeaſe or the operation.

Having related theſe two caſes, I have ſaid all which I had to advance on the ſubject, except that I have met with more than one inſtance of a circumſcribed tumour on one ſide of the *pelvis*, which I at firſt ſuſpected to be a diſeaſed *ovarium*. But as theſe tumours have always given way to the preſſure of the head of the child, the paſſage of which they have only retarded for a ſhort time, I have concluded they were formed either by ſome ſoft fatty ſubſtance,

ſubſtance, or were cyſts containing lymph caſually effuſed, and forming to itſelf a cyſt of the cellular membrane. But on taking an examination after delivery, the tumours were found to have again acquired their primitive form and ſize.

8. *Rupture of the* Uterus.

The human *uterus* is found to retain its original thickneſs during the time of pregnancy, notwithſtanding its diſtention; or to become ſomewhat thicker than it was in the unimpregnated ſtate. This thickneſs, we have therefore reaſon to think, is conſequent to ſome principle acquired, and coeval with conception. But if the whole, or any part of the *uterus*, ſhould be deprived of this principle, or affected with any diſeaſe deſtructive of its operation, then the whole, or the part ſo affected, would be mechanically diſtended, and become thinner in proportion to its diſtention; and at the time of labour, when the action exerted might be greater than the unthickened part of the *uterus* was able to bear, the *uterus* would be of courſe ruptured. Or if the *uterus* which had acquired its proper thickneſs, became affected with any diſeaſe, weakening its power, and ſpeedy in its progreſs, the texture of ſome part ſo affected might be deſtroyed, and the *uterus* ruptured by its own action in the time of labour. The *uterus* may alſo be ruptured by attempts to paſs the hand for the purpoſe of turning a child, if

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it was ſtrongly contracted; but in this laſt caſe a rupture could only happen when the force with which the hand was introduced, was combined with the proper action of the *uterus*; for no perſon has the power to force his hand through an healthy and unacting *uterus*.

Some of the cauſes of the rupture of the *uterus*, are unavoidable; for it is not within the ſphere of human abilities, to give to any part the principle by which it has the diſpoſition to perform any function; though art may excite it to action if dormant, or repreſs it when too vehement. But the two other cauſes, that which is preceded by inflammation, or that which may be occaſioned by attempts to turn the child, may be corrected or avoided, by abſtaining from the uſe of all ſuch means as are likely to act as cauſes of inflammation; or from making ſuch attempts as may be neceſſary for the purpoſe of turning a child, when the action of the *uterus* is ſtrong.

The rupture of the *uterus* is uſually accompanied with a ſenſe of ſomething giving way internally, with an inſtant vomiting of brown humour, and a total ceſſation of the pains. After theſe ſymptoms, by the application of the hand to the *abdomen*, the limbs of the child are ſo eaſily diſtinguiſhed through the integuments, as to leave no room to doubt of the accident; and if the head of the child

child be not locked in the *pelvis*, it immediately recedes, or even goes out of the reach of a common examination.

When a rupture of the *uterus* has happened, there is little chance of the patient ſurviving it; and it might be doubted, whether it would be more eligible to ſuffer the patient to die without giving her further trouble, or whether it was our duty, hopeleſs as the caſe muſt be, to paſs the hand into the *uterus*, to turn and deliver the child by the feet, or with the *forceps*, or in any way the caſe would allow. Whatever were the ſentiments of practitioners formerly, is not to us very material; but beſides ſome others of which I have been informed, a caſe has occurred to my very worthy, able, and experienced friend Dr. *Andrew Douglas*, in which though the *uterus* was ruptured, he turned the child, and the patient recovered. If no other caſe had ever occurred, I apprehend that this would be of ſufficient authority, to render it in future the indiſpenſible duty of every practitioner to act in a ſimilar manner; and bad as the chance of the patient is, to be ſtrenuous in uſing all the means which art dictates, to extricate her, if poſſible, from her danger. But for further information on this head, I refer the reader to the Eſſay on the rupture of the *uterus*, publiſhed by Dr. *Douglas*.

SECTION.

THESE cauſes of difficult labours I have enumerated in this order, with the hope of pointing out a more uſeful method of arranging the knowledge we poſſeſs, and of removing ſome part of that obſcurity in which the practice of midwifery has been involved, and by which its further improvement hath been hindered. Two things appear in the general reſult; firſt, that the evils attending parturition are more frequently adventitious, than neceſſary and unavoidable; and ſecondly, that the native powers of the conſtitution, when not interrupted, are not only ſuperior to the common obſtructions of the proceſs, but in general, to every kind and degree of deviation from the natural courſe of labours. Yet with every prudential regard to our own conduct, and the moſt judicious regulation of that of our patient, we ſhall in practice certainly meet with caſes in which, either from the debility of thoſe powers which uſually exiſt, and which ought to be exerted; or, from the greatneſs or ſtubborneſs of the obſtructing cauſe, we ſhall be compelled by neceſſity to give artificial aſſiſtance, or the mother or child, or both will be loſt.

Before

Before we proceed to the conſiderationof the various means which have been contrived for the relief of women in caſes of difficult parturition, it may be again obſerved, that the cauſes of difficulty are generally combined; and as there are very few inſtances of a diſeaſe, according to the ſimple definition of it, in noſological writers, ſo there are few examples of difficult labours produced by one ſingle cauſe. Together with the dribbling of the waters, there will often be a retraction of the head of the child from the ſhortneſs of the *funis*; and with great rigidity of the parts, or a ſmall *pelvis*, there may be a weak action of the *uterus*, and ſo on to an almoſt endleſs variety. One cauſe will however predominate, and of courſe become the principal object of our attention. But when by time, or art, that cauſe is removed, we muſt apply ourſelves to the removal of that which is important in the next degree; and ſometimes the ſame means may be properly uſed for the removal of difficulties proceeding from ſeveral different cauſes.

But beſides the cauſes already mentioned, there is one much more frequent than the reſt, which is the derangement of the order of the labour by an officious interpoſition, or by improper management. Upon this ſubject it would be unpardonable to make an aſſertion which is not ſupported by experience; but I am fully convinced that the far

greater number of really difficult labours to which I have been called, and I muſt not conceal the truth on this occaſion, ſome of thoſe which have been originally under my own care, were not of that denomination from any unavoidable neceſſity, but were rendered ſuch by improper management. Nor does the diſturbance of the order of a labour, depend upon the practitioner alone; for the intractability of the patient herſelf*, or of her friends and attendants, which though it may be generally founded in compaſſion to her ſufferings, may alſo ariſe from many other motives, are not rarely productive of the ſame effect.

On the part of the practitioner there is not only required much previous knowledge and preſent judgment, to diſtinguiſh in caſes of great difficulty, which of them may demand the aſſiſtance of art, and which may be reſigned to the efforts of nature; but there is no ſituation, in which there is occaſion for greater addreſs to procure the confidence and co-operation of all the parties concerned; or for more firmneſs in the purſuit of the negative conduct,

* De la part de la mere c'eſt quelquefois ſa mauvaiſe humeur, ſon impatience, ſon indocilitè, la violence et la irregularitè des mouvements.

Peu la Pratique des Accouchmens.—Livre II. Cap. 1.

conduct, which it is abſolutely neceſſary to follow. Whatever may be the reſolution of particular women, and whatever may be the general eſtimation of natural labours, every woman is impreſſed with the opinion, and the opinion is often well founded, that in difficult ones, her life muſt be preſerved by the ſkill and judgment of the practitioner, under whoſe care ſhe is placed. If therefore her confidence is ſecured, the delay to give aſſiſtance will be conſtrued into a proof that none is required, and of freedom from danger.

The diſtreſs and pain which women often endure while they are ſtruggling through a difficult labour, is beyond all deſcription, and ſeems to be more than human nature is able to bear under any other circumſtances. The great principle of all their patience and reſolution, is perhaps that deep-rooted affection of the parent to the offspring, implanted in the female mind. But the principle of ſelf-preſervation, though varying in its operation, will recur, and demand its ſhare of regard. In long and continued labours it is therefore proper by frequent alluſions to the child, to encourage and ſtrengthen the former principle, for its power is leſſened or overcome by the weight of their preſent diſtreſs; their love for their child is conquered; and the proſpect of diſtant pleaſure is

not

not able to ſtand in competition with the evils of the preſent moment. With the firmeſtde termination to do what is right, they perſuade themſelves that the child is dead; that the object for which they ſhould perſevere, no longer exiſts; and the practitioner in oppoſition to his own feelings, and againſt the ſolicitation of thoſe who confide in him, is often the only advocate for the child. But his deciſion to act in caſes in which the life of a child is concerned, muſt ſtand upon a better principle than conformity to the inclinations of others; and though he might avoid preſent cenſure, or even gain preſent credit, by giving artificial aſſiſtance unneceſſarily, when the caſe comes to be reviewed, and it always is reviewed, the blame of acting precipitately in caſes which do not terminate fortunately, will be caſt upon him, and their ſatisfaction will be eſtabliſhed by the diſcovery of ſome cauſe of blame in his conduct. In the exerciſe of the moſt hazardous part of a profeſſion, perhaps in general more ſubject to cenſure than any other, it behoves us to be particularly circumſpect: and though events are often beyond the power of human controul, we may always act with intelligence, with prudence, and firmneſs; and no man's character can long be ſupported, if he is not governed by the determination to do what is right, to the beſt of his judgment and power.

But

But however averſe the practitioner may be to the uſe of ſuch means as may be dangerous to, or even deſtructive of the child, caſes muſt occur in which the aſſiſtance of art will be abſolutely needful, and the uſe of inſtruments juſtified. As correct a judgment muſt alſo be exerciſed, and equal care taken that he does not delay that aſſiſtance which may be neceſſary, ſo long, that it cannot anſwer the end for which it was given; or while he is endeavouring to preſerve the life of the child, he may loſe that of the mother alſo, which certainly is of more value.

The intentions in the uſe of inſtruments may be of three kinds. Firſt, to preſerve the life both of the parent and child: ſecondly, to preſerve the life of the parent; and thirdly, to preſerve the life of the child. The inſtruments contrived to anſwer the the firſt intention, are the *fillet*, the *forceps*, and the *vectis*. Of each of theſe, together with all the collateral circumſtances which demand our regard, we ſhall ſpeak in their turn, and then proceed to the conſideration of the other intentions.

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